

CHILTON'S

MOTOR AGE

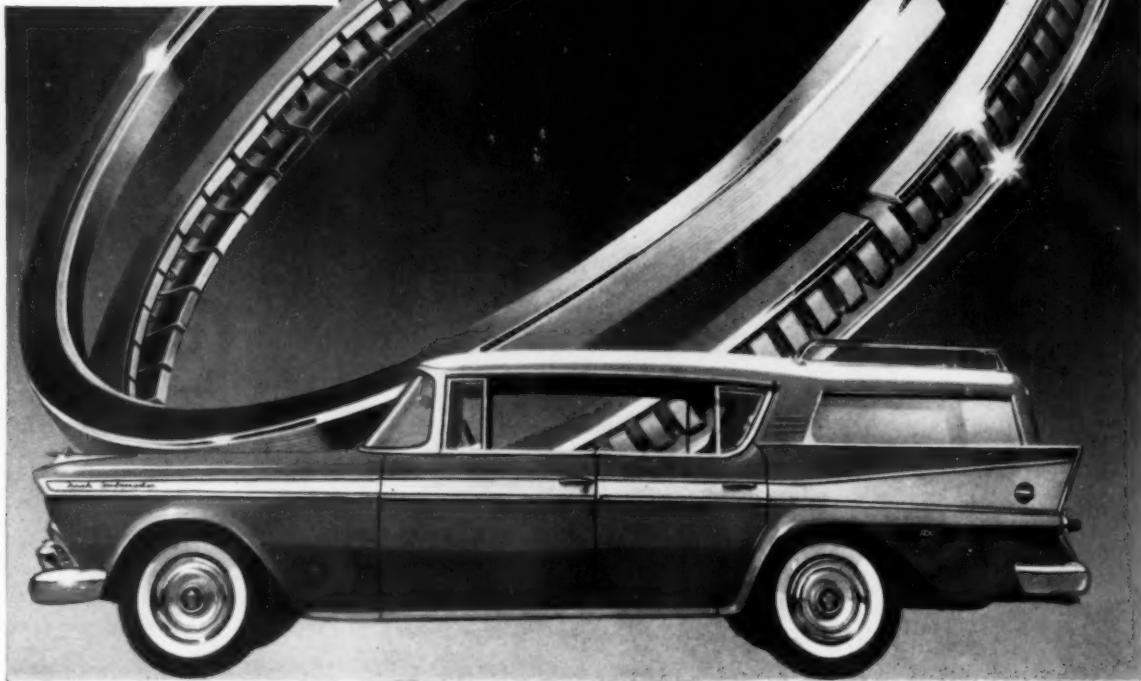
August, 1958

ELECTRICAL CHEX THAT SPARK PROFITS



Also in this Issue: ASL Shop of the Month—p. 37; Merchandising Story of the Month—p. 44; Mechanics Needed, Mechanics Wanted—p. 54

Since 1903...
PARTNER
IN PROGRESS
to the
AUTOMOTIVE
INDUSTRY



AMBASSADOR—One of the many outstanding motor cars using
Perfect Circle piston rings for both original equipment and replacement service.

Behind the world-wide acceptance of Perfect Circle is a history of more than half a century of PC engineering leadership—and more. There's a history, too, of unceasing creative research... a constant search for the new and the better... matchless manufacturing skills...and scores of contributions to the forward march of the automotive industry, year after year.

Leading manufacturers specify piston rings developed in co-operation with Perfect Circle engineers. You and your customers benefit with Perfect Circle's achievements in engineering, research and manufacturing skills when you install PC rings. Perfect Circle Corporation, Hagerstown, Ind.; The Perfect Circle Co., Ltd., 888 Don Mills Road, Don Mills, Ontario.

PERFECT CIRCLE  **PISTON RINGS**

ANOTHER BLUE STREAK SECRET SERVICE TIP FOR YOU

SHERLOCK MCKANICK and MIKE in

"The Case of the
Traveling Regulator."

“E#!!!@ MIKE! MY AMMETER
NEEDLE STAYED ON FULL CHARGE
AT 60 MILES PER HOUR!”

JIMINY,
MR. BLAST,
I ADJUSTED
YOUR
VOLTAGE
REGULATOR.

MICHAEL, WHEN YOU SET HIS
REGULATOR, DID YOU CONSIDER
THAT MR. BLAST IS A TRAVELING-
MAN, AND DOES MOST
OF HIS DRIVING
ON HIGH-SPEED
TURNPIKES BY DAY?

GOLLY,
SHERLOCK,
WHAT
DIFFERENCE
DOES THAT
MAKE?

CHARGING REQUIREMENTS
FOR “OPEN ROAD” DRIVING BY DAY
DIFFER FROM “STOP AND GO”
OR NIGHT TRAVEL. SET MR. B’S
REGULATOR LOW TO AVOID
OVERCHARGING HIS
BATTERY!

GEE,
HOW DO
I DO
THAT?



ELEMENTARY, MICHAEL. USE THIS **BLUE STREAK**
SERVICE BULLETIN, “TAILOR THE SETTING TO THE
JOB.” IT EXPLAINS EXACTLY HOW TO SET A
VOLTAGE REGULATOR FOR ALL CONDITIONS.
AS BLUE STREAK DEALERS WE HAVE OVER

ZOO HELPFUL
BLUE STREAK
BULLETINS.

BLUE STREAK Service bulletins

SERVICING VOLTAGE REGULATORS
PART 2—Tailor the setting to the job!!



FREE OFFER.
WRITE TODAY FOR
SAMPLE BULLETIN-78
“TAILOR THE
SETTING” TO
STANDARD MOTOR
PRODUCTS, INC.
37-18 NORTHERN
BOULEVARD,
LONG ISLAND CITY
NEW YORK—

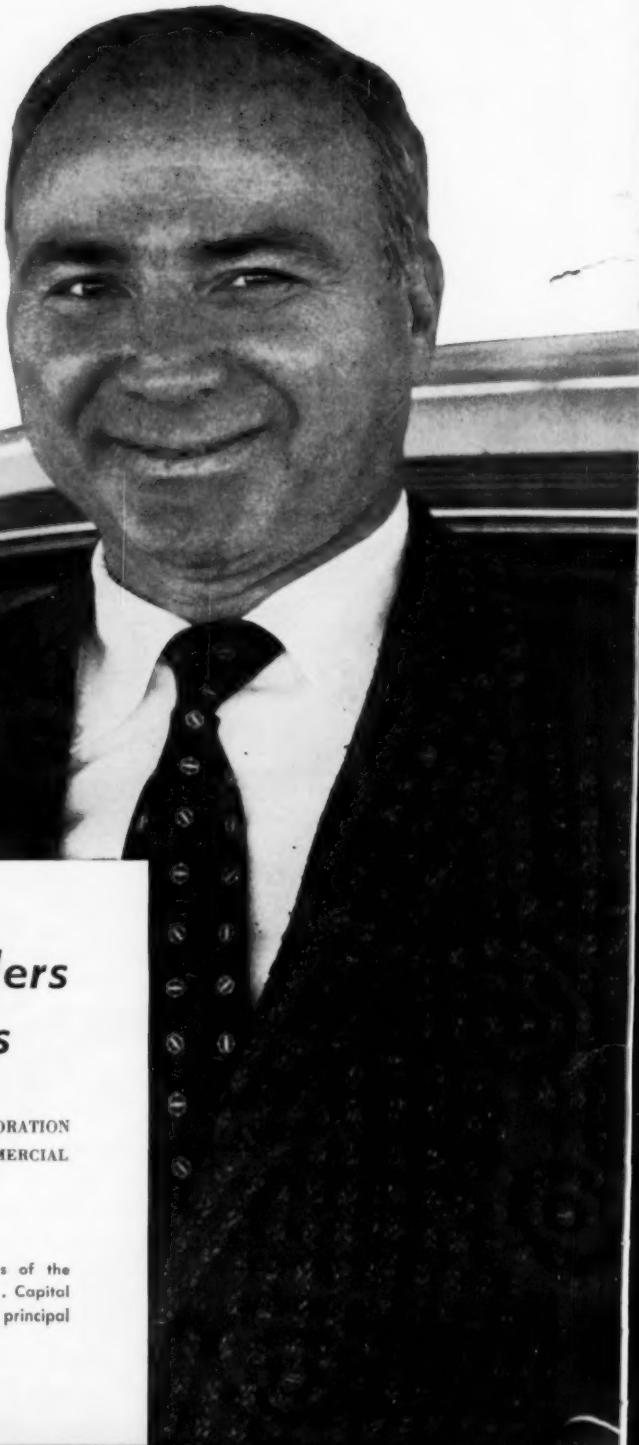


REGULATORS • SWITCHES • COILS • CONDENSERS • WIRE and CABLE • CONTACT POINTS

"...gives all the service that can possibly be given!"

says **CARMEN Di FRANCO**, Dodge-Plymouth dealer,
St. Louis, Missouri.

"We are really sold on the excellent cooperation given us by COMMERCIAL CREDIT. Our salesmen think COMMERCIAL CREDIT PLAN is the best in the field, and they pass this enthusiasm on when selling. I heartily endorse their feeling . . . COMMERCIAL CREDIT definitely gives all the service that can possibly be given. Credit checks are tops, even under difficult conditions. We keep full control of financing at all times, and are able to sell up to higher priced models and extras thanks to COMMERCIAL CREDIT PLAN."



Commercial Credit dealers are successful dealers

Write or call the nearest COMMERCIAL CREDIT CORPORATION office for complete information on the benefits of COMMERCIAL CREDIT PLAN. Why not do it, today?



A service offered through subsidiaries of the
Commercial Credit Company, Baltimore . . . Capital
and Surplus over \$200,000,000 . . . offices in principal
cities of the United States and Canada.



The door that leads to America's biggest selling truck—Chevrolet!

Latest complete registration figures* for January through March, 1958, show that Chevrolet continues as America's biggest selling truck. The official totals: Chevrolet—53,912; second choice truck—44,004.

This year, last year, in every production year since 1937, Chevrolet trucks have been No. 1 in buyer preference. As a result, there are now nearly three-quarters of a million more Chevrolet trucks on the road than any other make. That figure alone indicates the tremendous sales

potential of Chevrolet trucks—and the market grows bigger each year. Chevrolet dealers will keep pace with the expanding truck industry because they're geared for it. They've got a proved product. They've got the sales and service facilities. They've got everything it takes to keep regular customers coming back and new ones coming in. **The busiest doors in the business lead to Chevrolet dealerships! . . . Chevrolet Division of General Motors, Detroit 2, Michigan.**



*Compiled by R. L. Polk & Co. for all models in all weight classes.

WE APOLOGIZE!



FAMOUS BRAINTREE
Undercutter (1) and Portable
Turner (2)
Dept. MA

Due to the tremendous response from our recent advertising we are flooded with orders for our Arma-Twin turner and undercutter to the extent that we are a little slow in making deliveries . . . so please bear with us. You will be getting your Braintree undercutter and/or armature turner in early September.

We realize that every day you are without these portable armature conditioning Arma-Twins you are inconvenienced and probably losing money as well as customers for this type of work, so we are doing everything possible to speed up our shipments.

Braintree Tool Company, Inc.

121 Hancock St. South Braintree, Mass.

Easy Way to Align Automobile Bodies!



THE AMERICAN GAGE & MFG. CO.

123 Bayard Street, Dayton 1, Ohio

MOTOR AGE

is

the

best

read

AUTOMOTIVE

SERVICE

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CHILTON'S

MOTOR AGE

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AUGUST, 1958

Vol. 77, No. 9

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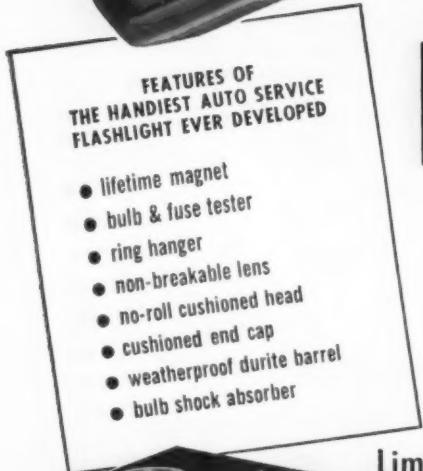
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The handiest auto service flashlight ever!

TUNG-SOL[®] FLASHTESTER



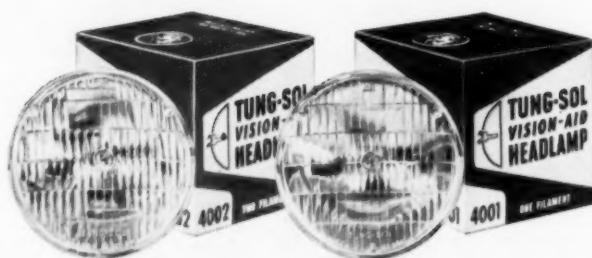
FREE WITH

\$1.99
VALUE

ONE CASE (12 lamps) of 5400-S or 5040-S
VISION-AID HEADLAMPS or...
TWO CASES (16 lamps) of 4001 or 4002
DUAL VISION-AID HEADLAMPS
(16 of one type, or 8 each of both types)

AT REGULAR PRICES!

Limited Time Only—Call Your Tung-Sol Distributor Today



LAMP DIVISION  **TUNG-SOL ELECTRIC INC.** NEWARK 4, NEW JERSEY



MOTOR AGE MEMO

It's the Law of the Land

PRESIDENT Eisenhower has signed into law the Automobile Price Labeling Law. The new Public Law 506, 85th Congress, requires every manufacturer and importer of new cars and station wagons to label the windshields of these units.

Effective October 1 or when new models are brought in (whichever is later) the labels will disclose the suggested list price; suggested price of optional equipment attached to the car at the time of delivery; make, model and serial number; final assembly point, name and location of dealer and place of delivery; method of transportation to the dealer; transportation charges; and the total of all these sums.

Objective of the law is to end price-packing at the retail level and to help the buyer make an intelligent deal for his new car. Dealers hope that the law will help restore buying confidence among new car buyers.

An Executive has Nothing to Do

Our friend Sherm Landers of Gray & Rogers advertising agency has handed us an amusing bit, titled as above. The author is unknown to us. The piece reads as follows:

"As everybody knows, an executive has practically nothing to do. That is, except:

"To decide what is to be done; to tell somebody to do it; to listen to reasons why it should not be done, why it should be done by somebody else or why it should be done in a different way, and to prepare arguments

in rebuttal that shall be convincing and conclusive.

"To follow up to see if the thing has been done; to discover that it has not been done; to listen to excuses from the person who should have done it and did not do it."

"To follow up a second time to see to it the thing has been done; to discover that it has been done, but incorrectly; to point out how it should have been done; to conclude that as long as it has been done, it may as well be left as it is; to wonder if it is not time to get rid of a person who cannot do a thing correctly; to reflect that the person in fault has a wife and seven children, and that certainly no other executive in the world would put up with him for a moment; and that in all probability, the successor would be just as bad or worse."

"To consider how much simpler and better the thing would have been done had he done it himself in the first place; to reflect sadly that if he had done it himself he would have been able to do it right in twenty minutes, but that as things turned out he himself spent two days trying to find out why it was that it had taken somebody else three weeks to do it, incorrectly; but to realize that such an idea would strike at the very foundation of the belief of all employees that an executive has nothing to do."

Faithfully yours,

..... HERE'S AN EXCLUSIVE!

ONLY PEAK® ANTI-FREEZE OFFERS A PROGRAM LIKE THIS!

ROUND-THE-CLOCK ADVERTISING for six
weekends in September and October on

MONITOR

"the NBC Radio Network's weekend-listening service"

STARRING THESE FAVORITES



George Gobel



Fibber McGee and Molly



Bob and Ray



Paul Winchell and
Jerry Mahoney



Ed Gardner
of Duffy's Tavern

Backed by reminder ads Monday thru Friday
for 8 weeks in leading local newspapers



Your customers will be hearing about PEAK with RUST-GUARD (the exclusive CSC combination of anti-rust ingredients) . . . at home, on the road, and in public places for six star-studded weekends over NBC's 190 powerful radio stations starting September 13. It's the biggest anti-freeze selling program in radio network history. And it's a PEAK exclusive.

Your customers will be seeing and listening to the details of the Expert Dealer Pre-Winter Checkup service on radio and in newspapers. And they'll be looking for the *sign of the Expert*. Feature PEAK this year and discover for yourself how this proven sales plan creates new anti-freeze customers, helps overcome price competition, and boosts related winter item sales.

Don't forget, there's a special allowance of \$.06 1/2 per

gallon for early PEAK deliveries. This is given so that you can offer GUARANTEED ANTI-FREEZE PROTECTION. Order now from your PEAK and NOR'WAY® Anti-freeze supplier. Tie-in and sell more.



AUTOMOTIVE CHEMICALS DEPARTMENT • COMMERCIAL SOLVENTS CORPORATION • 260 MADISON AVE., N. Y. 16, N. Y.



As little as \$9⁶⁰ a month puts you in this profit picture!

Make up to \$13.00 a car with
Black & Decker
Automatic Polisher!

"Polishing cars with Vitri-Glaze and my new Black & Decker Automatic Polisher brought me \$156.00 clear profit last month plus a lot of extra business."

That's the comment of just one of many men just like you who are making as much as \$13.00 a car profit on polish jobs! And they're doing it without special bays or areas set aside—often, during slack time! Their *Polishop's* no bigger than a step stool!

Let us show you how you, too, can make more profits with a B&D Automatic Polisher and new Super Vitri-Glaze than you make on any other service! Just mail the coupon for a free demonstration and details on how easily you can get in this top profit picture. THE BLACK & DECKER MFG. CO., Dept. 5108, Towson 4, Md. (In Canada: Brockville, Ont.)

Leading Distributors Everywhere Sell



Black & Decker®

Quality Electric Products . . . Power-Built for top performance

Circle 352 On Inquiry Card, page 61



These help you sell in
this high-profit market!

→ MAIL TODAY FOR FREE DEMONSTRATION ←

THE BLACK & DECKER MFG. CO., Dept. 5108, Towson 4, Md.

I like making extra profits! Let's see your Automatic Polisher and Vitri-Glaze.
 Send me additional information.

Name..... Title.....

Company.....

Address.....

City..... Zone..... State.....

TEAMWORK



Rx Prescription Filtration

WIX AIR FILTERS

Prescription Air Filtration to give car engines maximum flow of clean air and protection from dust, dirt and grit.



Rx

WIX-KNIT

The premium full-flow Filtrant in the Golden Can prescribed for all cars that use premium oils.



Rx

POROSITE

The performance proved exclusive WIX pleated Filtrant for full-flow and partial-flow systems.



Rx

WIXITE

Exclusive WIX depth-type Cartridges for maximum mileage and top efficiency for partial-flow systems.



Rx

WIX SPIN-ON

The sensational WIX Filter development that is original equipment on America's leading cars.



Rx

WIX TEAMWORK pays off . . . puts new Life and more Profits into YOUR Filter Sales. Back of every WIX Air or Oil Filter Cartridge you sell are research facilities that make certain—scientifically—that you're giving the motorist the tops in filtration . . . filtration *prescribed* for his car, the oil he uses and the type of driving he does. And in merchandising, WIX tops the field with the product, the sales tools and selling programs that make sure you get more sales and your full share of Filter profits. Get Up-to-date in '58 . . . Call your Jobber about WIX today.

wix
FILTERS

as seen in...
The Saturday Evening
POST

WIX CORPORATION • GASTONIA, N. C.
In Canada: Wix Corporation Ltd., Toronto



The Volkswagen Panel Delivery gives you more usable, easily accessible loading space . . . 170 cu. ft., with a payload of 1830 lbs. You can install a complete shop inside for tools, parts and test equipment. This saves time, money and unnecessary trips. Plus: plenty of advertising space to promote your business.

Makes friends on every call...and money too

Besides Volkswagen's roomy and practical design, outstanding gas economy, ease of handling and parking, its great popularity is based on its remarkably low maintenance.

This engineered dependability is backed up by an unparalleled worldwide service organization. When service is needed, you get the best. Strategically-located warehouses and Volkswagen authorized service centers in all 49 (!) states maintain a complete stock of genuine  parts for fast service. *No wonder a Volkswagen costs less to buy, run, and maintain.*

VOLKSWAGEN
DELIVERS THE GOODS
...FOR LESS!



VOLKSWAGEN

McQUAY-NORRIS makes the most Power-Packed rings in the world

...and the Famous
"400 Oil" Ring
is in every set...
will outperform any other
oil ring made today
regardless of design.

The Famous
Torsion-Tight
Aviation
Fire Ring



The Duo Oil-
Compression
Ring with
Chrome
Armored
Steel Rail



The Famous
"400" Oil
Ring with
Chrome
Armored
Rails



McQUAY-NORRIS
CHROME

LEAK-PROOF.
PISTON RINGS

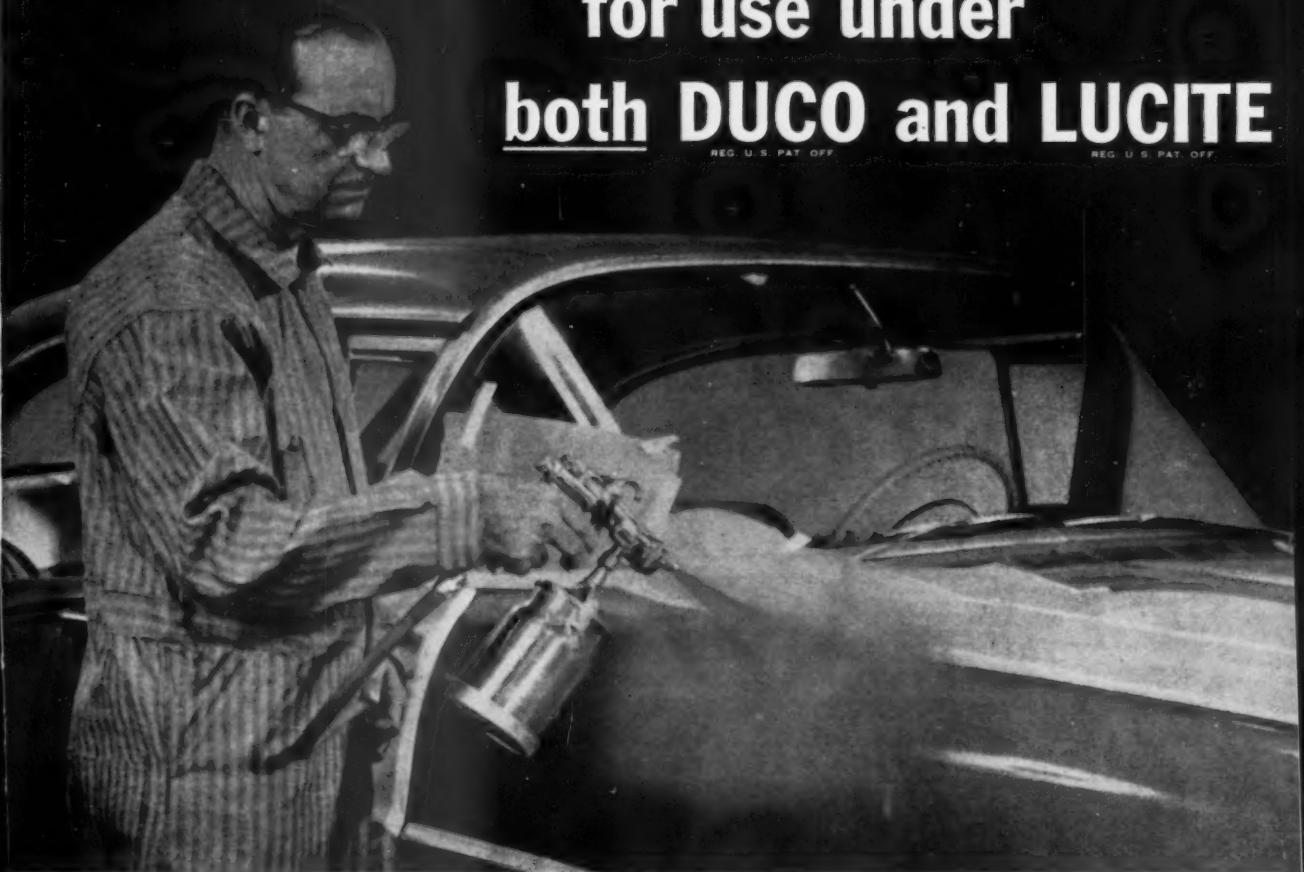
Distributed by the finest wholesalers in the industry

McQUAY-NORRIS MFG. CO., ST. LOUIS • TORONTO

NOW...One primer-surfacer for use under both DUCO and LUCITE

REG. U. S. PAT. OFF.

REG. U. S. PAT. OFF.



New Du Pont #70 DARK GRAY and #80 RED OXIDE
join #30 PLATINUM GRAY to give top versatility



Here are the most versatile primer-surfacers available today. You can use all the new Du Pont Hi-Speed Primer-Surfacers under both super-topcoats—DUCO® Lacquer and LUCITE® Acrylic Lacquer. They eliminate the stocking of many extra primer-surfacers; they handle easily, perform perfectly under all conditions, are ideal as the undercoat for all of today's car colors.

The new Hi-Speed Primer-Surfacers are outstanding in color holdout . . . give the

base for uniformly beautiful gloss that cuts compounding time. In addition, they stay uniform after thinning to prevent pinholing . . . fill fast and dry fast . . . sand smooth without tearing and pulling.

So try these 3 Du Pont Hi-Speed Primer-Surfacers—the new #70 Dark Gray and #80 Red Oxide, and popular #30 Platinum Gray. They cost less at the gun than many so called "bargain" primer-surfacers. Available at all Du Pont jobbers.



REG. U. S. PAT. OFF.

DU PONT REFINISHING MATERIALS

Chemically engineered to do the job better

BETTER THINGS FOR BETTER LIVING THROUGH CHEMISTRY

PYRO®

**The top quality anti-freeze
is EASIER to sell**

The Aristocrat of Anti-Freeze

Selling is easy when you use Pyro's new approach to anti-freeze sales. Tie in with Pyro's coast-to-coast advertising campaign promoting Pyro as the "aristocrat of anti-freeze" and you'll increase your anti-freeze sales this year. Call your jobber for Pyro Anti-Freeze today!

**Free Tie-Ins identify you with
PYRO'S national advertising . . .**

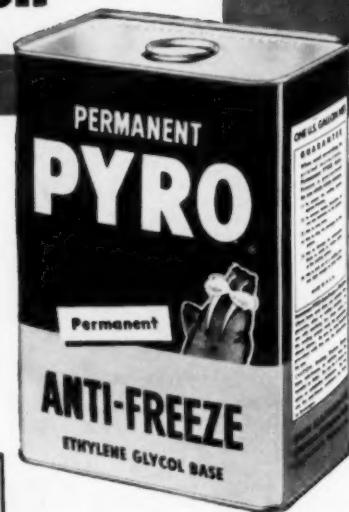
National Radio makes 35,000,000 impressions over 200 radio stations.

Direct Mail ties you in with national campaign and tells the quality story.

Point-of-Purchase streamers, banners and die-cut crowns identify you as a Pyro dealer.

Jumbo Lapel Pins button up increased PYRO Anti-Freeze sales.

Super PYRO® and Permanent PYRO® are trademarks



ENVELOPE
STUFFERS

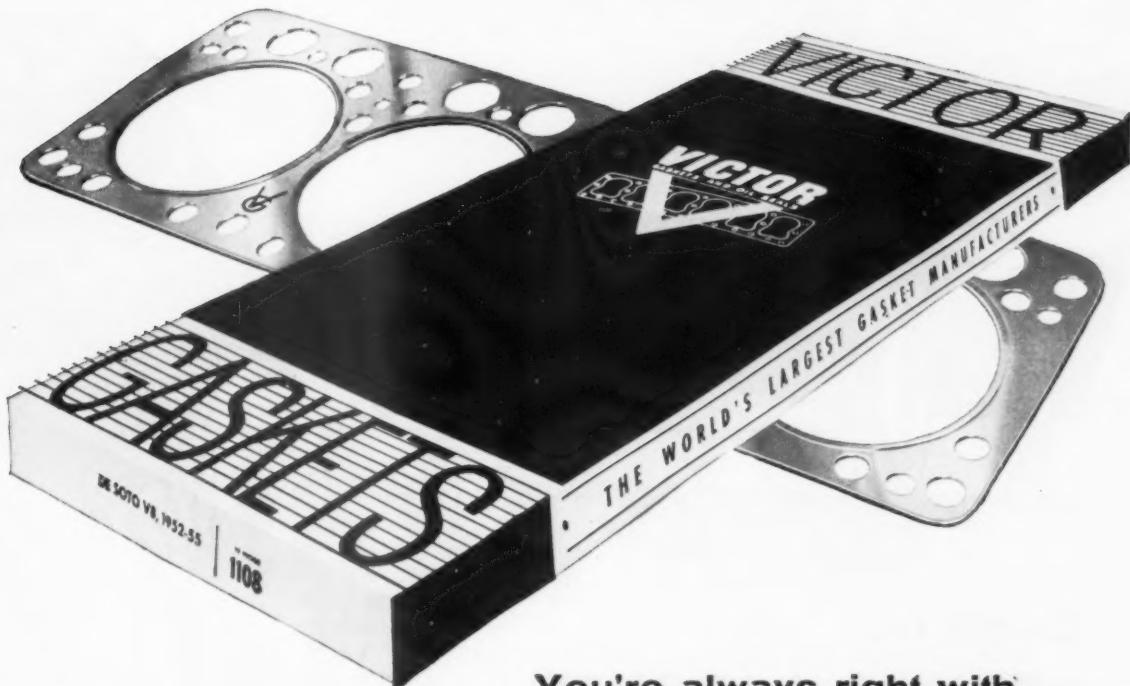


BUTTONS

STREAMERS



OLIN MATHIESON CHEMICAL CORPORATION
Automotive Products Department • Baltimore 3, Maryland



You're always right with

VICTOR

THE RIGHT REPLACEMENT
THE RIGHT FIT
THE RIGHT PERFORMANCE

Assured by Victor's leadership
in original equipment
sealing parts development

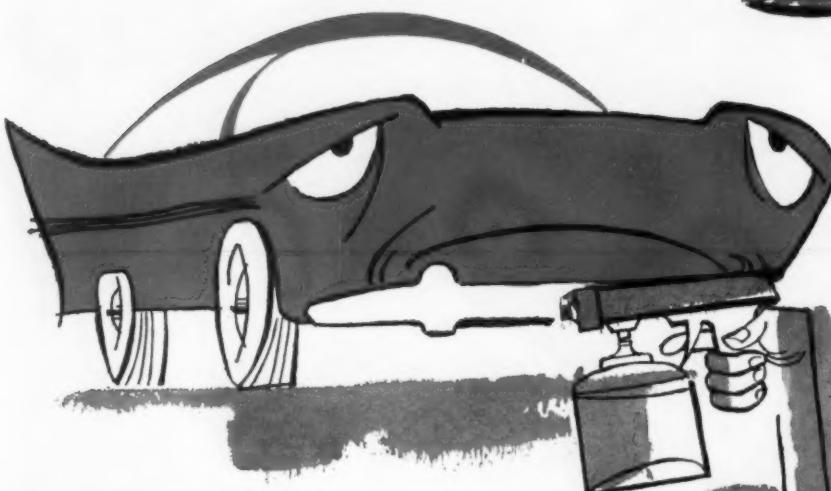
The 100% Coverage Line
for Cars, Trucks, Tractors, Stationary Engines
Stocked Locally by Your Victor Jobber



VICTOR

GASKETS • OIL SEALS • PACKINGS

Victor Mfg. & Gasket Co., P.O. Box 1333, Chicago 90, Ill.
Canadian Plant: St. Thomas, Ontario



Don't let ACRYLIC LACQUER REFINISHING be a problem!

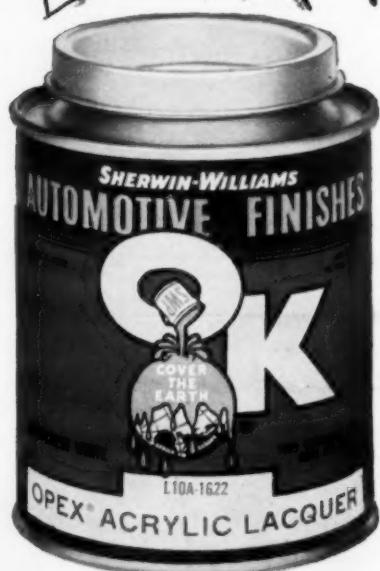
Do it the easy, safe, sure OPEX® way . . .
with Sherwin-Williams OPEX Acrylic Lacquers

NO special undercoats . . . NO extras . . . just ONE top-coat material and ONE thinner! That's all you need for perfect acrylic lacquer refinishing, the easy-to-do OPEX way!

Sherwin-Williams OPEX Acrylic Lacquers take the mystery—and the complications—out of acrylic lacquer refinishing. Unlike most others, they can be applied directly over clean, regular lacquer surfaces, or over any Sherwin-Williams OPEX Lacquer Primer-Surfacer.

You can get OPEX Acrylic Lacquers either factory-packaged to match car production colors—or you can mix your own, when and as you need them, from regular OPEX Lacquer intermixing colors by adding OPEX ACRYLIC MIX.

Try the easy OPEX way—either ready-packaged or custom-mixed—on your next Acrylic finish job. Call your Sherwin-Williams OK Automotive Jobber! The Sherwin-Williams Co., Automotive Division, Cleveland 1, Ohio and Montreal, Canada. (Export Division, Newark 1, New Jersey.)



Either Factory-Packaged
or Custom-Mixed



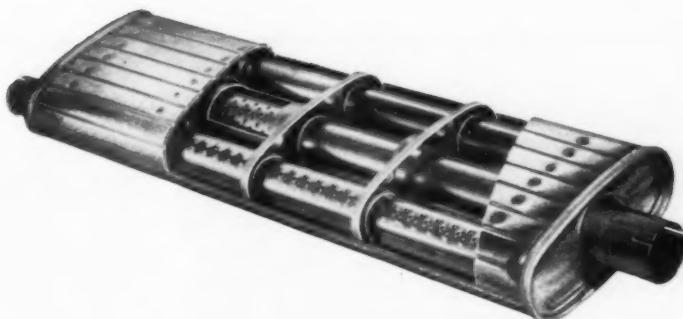
AUTOMOTIVE
FINISHES

SHERWIN-WILLIAMS

There are just 3 ways to combat corrosion . . .

to make longer lasting mufflers . . .

ONLY AP



**GIVES YOU
ALL THREE!**

Now on 8 out of every 10 units produced! Here they are!

Only AP has all three

THICKER STEELS

1

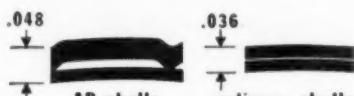
It obviously takes longer for rust to eat through steel that is thicker. For years AP mufflers have had up to $\frac{1}{3}$ thicker shells than any other leading brand. This gives them $\frac{1}{3}$ more resistance to the metal-eating acids produced by today's big engines, new fuels. It also means that they can take a greater beating from impact with potholes, curbs and other objects. And they have up to $\frac{3}{5}$ thicker steel in outer heads for greater resistance to rustout and blowout.



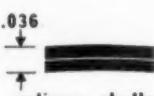
AP outer heads



ordinary outer heads



AP shells



ordinary shells

"DRI-FLOW DESIGN"

2

Thicker steels are part of the answer to the corrosion problem. But AP goes a step farther by fighting internal corrosion with revolutionary "Dri-Flow" Design. This helps prevent internal rustout by evenly distributing the flow of hot gases—holding condensation to a minimum. The moderate, uniform heat flowing throughout the muffler keeps acid moving harmlessly out the tailpipe as a vapor, instead of cooling and condensing inside the muffler. "Dri-Flow" gives these heavier, long-lived mufflers *even longer life*.



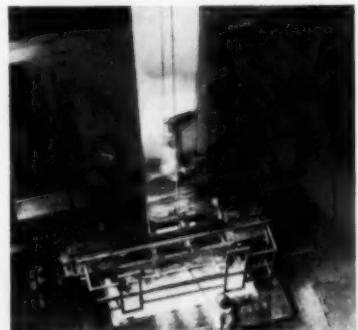
"DRI-FLOW"

Almost perfectly dry after a 10-minute test on a dynamometer because of even heat distribution. Drying action minimizes internal corrosion.

COATED STEELS

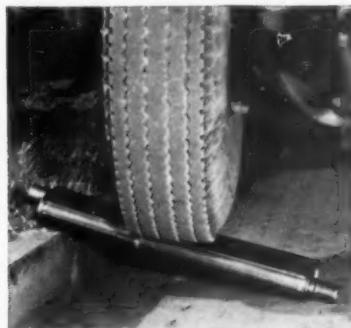
3

Thicker steels, plus "Dri-Flow" Design, put up a terrific fight against corrosion and by themselves make AP last longer than ordinary mufflers. But AP also provides premium coated steels to help win this battle. Such coated steels have played an important part in AP quality design for almost 20 years. Now, for *plus* protection, AP reaffirms its traditional quality leadership by adding premium coated steel to *every muffler for 1955 through 1959 model cars, as well as many older models*. This brings the total number of AP mufflers featuring premium coated, corrosion-resistant steels to 163 — more than you will get in any competitive line!



AP thicker steel is coated on both sides with molten aluminum or zinc to give maximum resistance to corrosion.

features that mean longer life



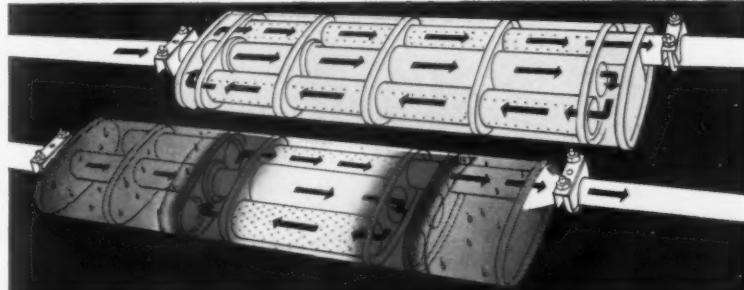
Extra ruggedness—AP's stronger construction, inside and out, lets it take the weight of this 5-ton trailer with practically no damage to the shell.

AP muffler number	AP weight	mfr. B weight	mfr. C weight	mfr. D weight	% AP is heavier
504	17 1/2 lb.	15 1/4 lb.	14 1/4 lb.	16 1/2 lb.	AP up to 19% heavier
467	17 1/2 lb.	11 1/4 lb.	12 lb.	12 lb.	AP up to 48% heavier
401	14 1/2 lb.	10 1/2 lb.	10 1/2 lb.	11 1/2 lb.	AP up to 40% heavier
479	15 1/2 lb.	12 1/2 lb.	11 lb.	13 lb.	AP up to 42% heavier
411	8 1/2 lb.	6 1/2 lb.	8 lb.	8 1/2 lb.	AP up to 35% heavier

Five typical popular numbers show AP's heavier weight. Weight is not by itself a guarantee of muffler quality. But with AP, this weight (given above without cartons) means thicker steels that resist corrosion much longer.



Filled with corrosive moisture after same test because of hot-spot, cold-spot design of this ordinary muffler. Often a quart can collect, speeding rustout.



"Dri-Flow" Design (top) sends the hot exhaust gases into every part of the muffler. There are no cold spots to collect metal-eating moisture and cause rustout. Ordinary mufflers (bottom) choke off gas flow from "cold" chambers, causing condensation and premature failure.

Plain facts about muffler life

Corrosion is the biggest enemy of mufflers. And there are just three ways to beat this enemy: (1) use thicker steels; (2) design the muffler so that it stays drier inside, reducing metal-eating condensation to a minimum; and (3) use coated, corrosion-resistant steels. *Only AP gives you all three!* Today 8 out of every 10 units produced by AP have these quality features that mean longer muffler life. More than

ever, AP mufflers outlast, outperform, all others.

A premium muffler at regular price!

In spite of the fact that AP is the quality leader, *you and your customers pay no more for AP mufflers!* With this superb product that is priced right, the proved AP Muffler Specialist Program, and national consumer advertising, you can't miss. Dealers make over \$2715 per year on muffler installations . . . get on the AP bandwagon today!

THE AP PARTS CORPORATION
3U AP Building, Toledo 1, Ohio • Exhaust systems for better motoring

Does the brake lining **YOU**
use have all the essential
qualities for safe stops?

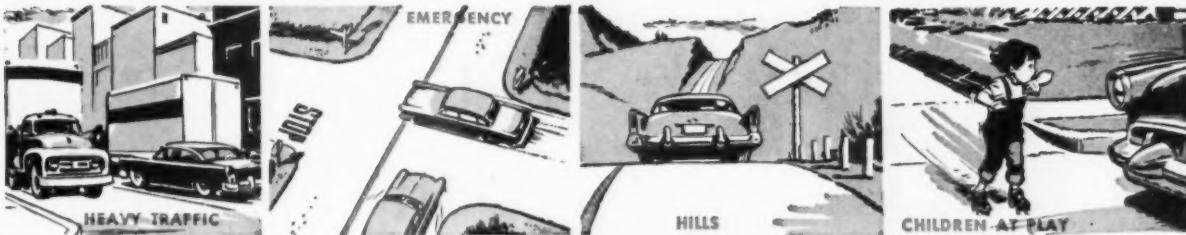


Give ALL your customers.



Wagner Lockheed ... the best

LOCKHEED HYDRAULIC BRAKE PARTS, FLUID and BRAKE LINING • AIR HORNS • AIR BRAKES • TACHOGRAPHES



SAFE, SMOOTH STOPS

The complete line of **Wagner® Lockheed** BRAKE LINING

gives you the correct lining for every job!

Modern, more powerful vehicles with radically improved acceleration, operating in heavier traffic than ever before, must make more stops and snubs from higher speeds. Tremendous heat is developed in the brakes—especially those with smaller covered wheels with less ventilation to cool the brakes.

The resistance of brake lining to heating without excessive fade or loss of friction and wearing qualities is now more important than ever before. For that reason, changes in processing and ingredients that withstand today's more severe braking requirements have been added to Wagner Lockheed Brake Lining formulations. Now, you can provide all your customers safe, smooth stops.

TODAY, the complete line of Wagner Lockheed Brake Lining gives you the *correct* lining for every job. You can make your choice from the following:

WAGNER LOCKHEED "WEB"

COMAX BONDED SETS—bonded with CoMaX premium quality wire-back lining.

CoMaX is compounded primarily from short fibre asbestos and contains no harmful abrasives to injure drums. Uniform in density, it will not compress, absorb moisture or deteriorate with age. It withstands high operating temperatures... Available for most popular cars and commercial vehicles.

WAGNER LOCKHEED "WB" SETS

BONDED WITH "WP" LINING—utilize dry-mix rigid molded segments of finest grade—engineered to give smooth positive

fade resistant stopping action with quick recovery characteristics.

On high horsepower passenger car and commercial vehicles with or without automatic transmissions and power brakes, WP full-molded lining provides long lived, superior braking performance.

OVERSIZE LININGS on Wagner Lockheed lined brake shoe sets are available in two oversize thicknesses. For details—refer to Bulletin BU-579.

WAGNER SHOE EXCHANGE PROGRAM—provides Wagner Lockheed lined shoe sets in exchange for acceptable used cores (shoes of the same model having worn linings, but otherwise in reusable condition),—at the cost of only the lining and the labor of installing the lining.

Quality materials are used, and all shoes are turned out to factory specifications. Exchange shoes save you labor time. Available for most popular cars and light trucks.

FOR DETAILS on complete line, consult nearest supplier of Wagner Products or send for Bulletin BU-579.

WB58-3

Wagner Electric Corporation

6498 PLYMOUTH AVENUE, ST. LOUIS 14, MO., U.S.A.

(Branches in principal cities in U.S. and in Canada)

Please mail me a copy of Bulletin BU-579. I understand there is no cost or obligation.

NAME _____

FIRM NAME _____

ADDRESS _____

CITY & STATE _____

known name in brake service
ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL BRAKES



BILL GRAY GETS PROFITABLE BONUS BUSINESS from out-of-state motorists who carry Texaco Credit Cards. "Texaco customers in all 48 states make it a point to stop at Texaco stations along the way when they hit the road," he says.

"Teaming with and as boss I

BILL GRAY enjoys a good living. He's been a successful Texaco Dealer in Los Angeles for 25 years. He worked in a clothing store back in the grim depression days of 1932.

"I was determined to be my own boss," he says. "I had seen too many good men lose their jobs through no fault of their

Bill is greeted by his wife as he returns from work. The Grays take an active interest in local civic affairs.



Texaco gave me a solid future, have real job security”

says Bill Gray

own. When you're the boss, you have control over your future. With Texaco, this means a stable, growing income.

“I chose Texaco because Texaco products are sold nationally—and are highly regarded by motorists. You'd be surprised at the extra *bonus* business we get from out-of-town Texaco customers.

“The Texaco people are my business counsellors — an invaluable asset in this competitive age. And Texaco's year-round advertising and promotion support, in addition to their leadership in quality products, has been important to my success. I like to do business with Texaco.”



6 reasons why you can make money as a Texaco Dealer:

The best petroleum products, known and accepted by car owners in all 48 states. Continuous research and development insure that TEXACO will always have outstanding products. **The best** and biggest national advertising program... constantly *selling* TEXACO Dealers to car owners everywhere. **The best** point-of-sale promotion material to help bring customers in and bring them back! **The best** customer credit card — in fact, the *only* petroleum credit card honored under one sign in all 48 states... and in Canada, too. **The best** retailer policy—TEXACO cooperates with its dealers in the marketing of nationally-advertised and accepted TBA products. **The best** opportunity to cash in on “touring” business — because TEXACO customers at home like to stop at TEXACO stations when on the road. This means you have 38,000 other TEXACO Dealers helping you.



THE TEXAS COMPANY

A SOLID FUTURE is one of the advantages of being a Texaco Distributor or a Texaco Dealer. Proof: 683 of our Distributors have been with us for 20 years or more — some as long as 45 years. 20,096 Texaco Dealers have been with us for 10 years or more — some more than 45 years. There may be an opportunity for you in the Texaco family. Get in touch with the Texaco Division Office nearest you.

DIVISION OFFICES: Atlanta, Georgia; Boston 16, Massachusetts; Buffalo 5, New York; Butte, Montana; Chicago 4, Illinois; Dallas 2, Texas; Denver 3, Colorado; Houston 2, Texas; Indianapolis 1, Indiana; Los Angeles 5, California; Minneapolis 3, Minnesota; New Orleans 16, Louisiana; New York 17, New York; Norfolk 2, Virginia; Seattle 1, Washington.

Interested in servicing

Champion has the right spark plug



Two-passenger **BMW ISETTA** develops 13 hp from one-cylinder engine, uses Champion L-5 or L-11S.
JAGUAR XK140 6-cylinder engine uses Champion N-8 or N-8B in 8:1 compression ratio models.

More than 5% of all new cars being sold in this country are imports. It's a growing market that you may want to go after. If you do, you don't have to wonder about what make of spark plugs to carry. Champion has the plugs you need.

Makes no difference *where* the car was born. Germany . . . England . . . France . . . Sweden . . . Italy . . . anywhere. Champion has a spark plug that speaks its language like a native. In fact, most of these cars start life with Champions in their engines. (Champions are factory installed in 36 makes of cars — more than twice as many as any other plug.)

Since most foreign cars take different plug types than American-made cars, you can't service them out of your regular inventory. And, frankly, we don't advise you to stock up on these special types unless you have a sizable foreign-car traffic. You can get the plugs from your regular Champion supplier when you need them.

But remember — you can service all makes of foreign cars with CHAMPIONS — just as you can service every car made by Ford Motor Co., General Motors, Chrysler Corp., American Motors, and Studebaker-Packard, with 5-rib Champion Spark Plugs!

CHAMPION SPARK PLUG

foreign cars?

for every foreign car sold in America!

Illustrated below are several
of the well-known makes



VOLKSWAGEN has 4-cylinder,
36-hp air-cooled engine in rear,
uses Champion L-85.



RENAULT DAUPHINE has 26-hp,
4-cylinder engine in rear,
uses Champion L-10.



ANGLIA (English Ford) has
4-cylinder, 36-hp engine,
uses Champion L-10.



HILLMAN-MINX has 4-cylinder,
51-hp engine, uses Champion
N-8 or N-8B.



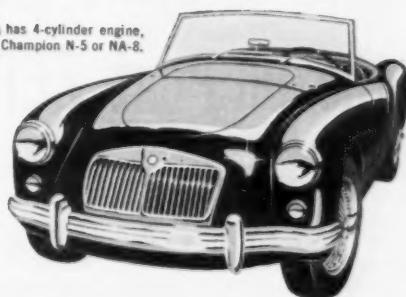
ROLLS ROYCE Silver Cloud
uses Champion N-8 or N-8B.



Front-wheel drive **DKW** has
3-cylinder engine, uses
Champion K-11.



VOLVO has 4-cylinder,
60-hp engine, uses
Champion J-6.



MGA has 4-cylinder engine,
uses Champion N-5 or NA-8.



FIAT 1200 convertible with
4-cylinder, 155-hp engine,
uses Champion H-9 or H-8.

FLASH!

Last month at Monza, Italy, in the
fastest race ever run, the winning car
was powered by Champion Spark Plugs!

WORLD'S FAVORITE—

CHAMPION

SPARK PLUGS



COMPANY • TOLEDO 1, OHIO

Chilton's MOTOR AGE, AUGUST, 1958



5 ways to make more anti-freeze profits with the Du Pont ZEREX® G.A.P.* Program!



*GUARANTEED ANTI-FREEZE PROTECTION

1. You sell more "Zerex" because you can start selling earlier! By featuring Guaranteed Anti-freeze Protection with Du Pont "Zerex", you invite customers to winterize early, cut down on jams-ups in freezing weather. To make it easy, the free "Zerex" Fall Display Kit includes your Dealer Record and Appointment Book in which you can keep a written record of customers' appointments for Guaranteed Anti-freeze Protection along with a record of their names and addresses.

2. You sell more "Zerex" with your G.A.P. Program because you give customers the assurance that their first cost is their last cost for all-season anti-freeze protection. And they get the best anti-freeze, backed by Du Pont. The refills, if any, you supply are more than compensated for by the $6\frac{1}{2}$ ¢ per gallon

reduction in the price you pay this year for "Zerex".

3. Your "Zerex" G.A.P. Program helps you sell more cooling system items by emphasizing the need for complete cooling system check-ups! When you inspect the system, you can spot defects and profit by the necessary repairs!

4. You outsmart non-servicing competition which can't offer G.A.P.! Over-the-counter stores can't give the one-filling guarantee, so their usually lower price loses its attraction to motorists. G.A.P. cuts down on "do-it-yourself" installations, too!

5. You win more repeat business all season because your "Zerex" G.A.P. Program is the link that binds your customers to you. It brings them back to your place of business for periodic check-ups. And your Du Pont "Zerex" Record

Book gives you a perfect anti-freeze solicitation list for next year!

Make anti-freeze installation a planned profit operation this season! Feature Guaranteed Anti-freeze Protection with "Zerex", the only permanent-type anti-freeze with MR-8, Du Pont's special rust inhibitor that keeps the entire cooling system Chemically Safe! Watch for the big announcement of this year's smash ad campaign soon!

DU PONT
REG. U. S. PAT. OFF.
BETTER THINGS FOR
BETTER LIVING
... THROUGH CHEMISTRY



The Readers Always Write

Support IGO's Efforts

Dear Editor:

The mechanic shortage is like the weather, everybody talks about it but,—! To attract capable young men into our trade we'll have to pay equal or better wages and give them equal or better working conditions than other trades. When the motorist shows more discrimination in choosing his serviceman and is

willing to pay for good competent service, the mechanic shortage will end.

Many of our states, Ohio, and the Federal Government have certain standards for the training of mechanics through a bureau of apprenticeship, and until we, who hire and fire, adopt these standards and have a uniform training program, we, and the motorist, will continue to suffer. If things are bad now, think what would happen if we had only a slight recession. In the past, anybody who had a monkey wrench, pair of pliers and a screw driver, immediately became a "mechanic." Will it happen again? Yes, it will—if we, who are most concerned, do nothing about it. I.G.O. has a program and unless you who repair cars get behind it to have it adopted, you can cry on your own shoulder.

Frank Hornyak, Pres.

I.G.O. Ohio
Toledo, Ohio

"How Motor Age Came to My Rescue"

This year we are having an occasional contest for our readers. The subject: "How Motor Age Came to My Rescue." The prize—a \$25.00 U.S. Savings Bond for the best letter on how Motor Age serves you best. Third winner is announced this month on page 53.

There are no entry fees . . . nothing to buy . . . no strings attached. All that you need do is to write a letter on your business stationery on the subject. Sign your name and title.

The contest is open to all subscribers of Motor Age, excepting employees of the Chilton Company, publishers of this magazine.

Writing style, grammar, are not essential factors in winning the contest. It's your ideas, your testimony that counts. Motor Age editors will be judges in this contest and their decision will be final.

Sunday Closing Sign

Dear Editor:

About eighteen months ago your publication carried on the cover, I believe, the words of a Lansdowne, Pa. Auto Dealer, relative to his closing on Sunday and why.

Would you please be so kind as to send us a copy of that wording? We would deeply appreciate it.

A. Lewis Reynolds, Jr.
Lincoln Avenue Motors
Jamesburg, New Jersey

Editor's Note: The late, M. E. Bushong, Pontiac dealer, Bywood, Pa., displayed the follow-

ing in his show window—

"We want to give satisfaction to all our customers . . . To do this, we feel our employees can give you this service . . . if they too are satisfied.

"Therefore, we feel they are entitled to 'Sundays at home with the folks.'

"So, our showrooms, service department and used car lots will be closed on Sundays.

"Thank you . . . for your co-operation."

Comment on Mechanics Wages:

Dear Editor:

The article in June Motor Age by G. E. Masinda, of Galesburg, Illinois, is so right.

Undoubtedly, the Chrysler article writer in the March issue knew not whereof he wrote, as the wages of a good mechanic in a big or little garage are in no way comparable to wages paid to just assemblers in the auto factories and I know, because I have numerous customers that work for a large automobile manufacturer. Also, the chance of a mechanic getting to be boss is as small as the improvement made in brakes in the last 15 years. As a matter of fact, a large dealer and agency I do business with, recently took a used car salesman off the car lot; made him service manager.

The present day cars are surely not made to be serviced economically. They are made to be traded in each year. No, as for future advantages, socially, monetary or otherwise, my advice to lads who are thinking of auto mechanics as a career—learn the plumbers' or electricians' or TV trade. But auto mechanics—never.

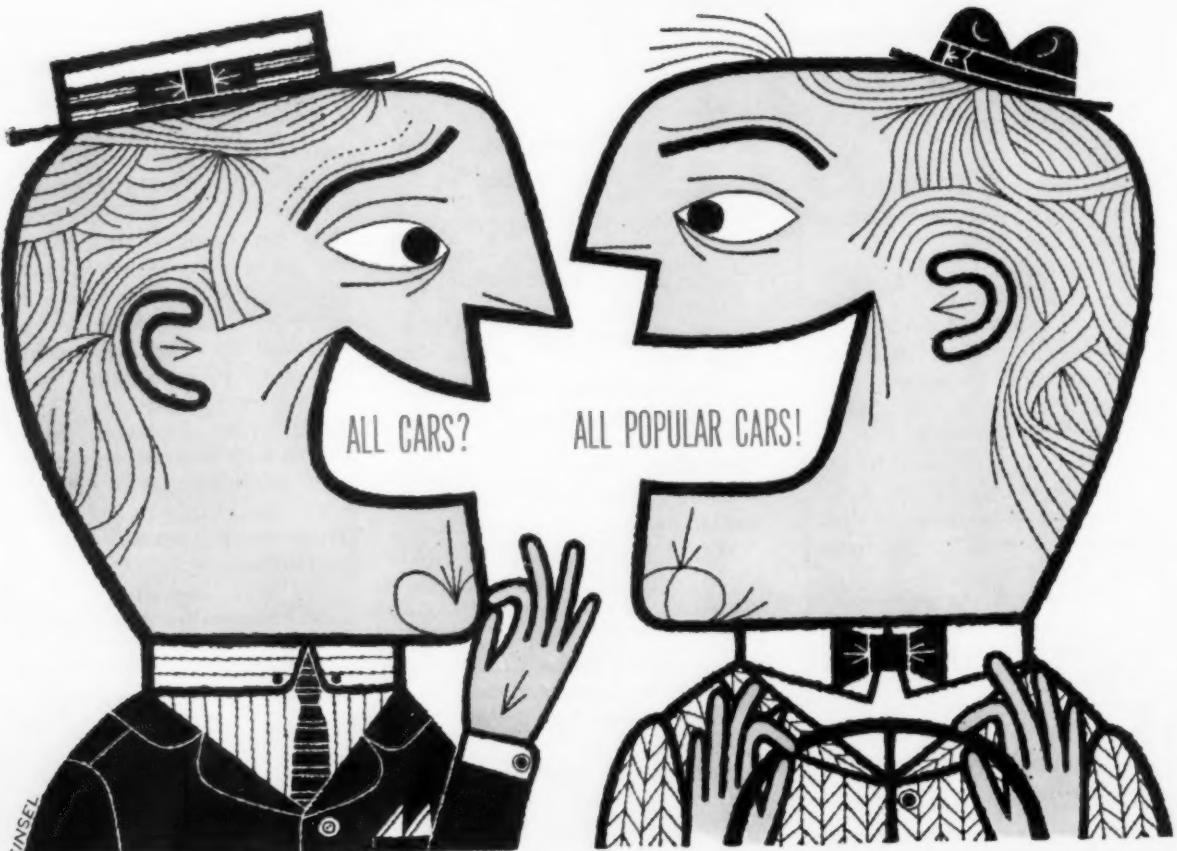
A. L. Bennett
Nashville, Michigan

Dear Editor:

Three cheers to George E. Masinda, Galesburg, Illinois, with "The Readers Always Write."

John E. Schneider
Muscatine, Iowa

NOW FOR FROM ELECTRICAL PARTS ALL POPULAR



THE FIRST TIME DELCO-REMY... TO SERVICE AMERICAN CARS!

Delco-Remy's new expanded line of electrical system service parts makes headline news for jobbers, service outlets and customers alike. Now for the first time owners of *all* popular American cars can enjoy the quality and reliability of parts from Delco-Remy—world's largest original equipment manufacturer of automotive electrical systems.

One inventory, one supplier, one line! Stock Delco-Remy alone and you're set to service all popular American makes: contact point sets, rotors and caps, generator brushes, regulators and coils. Get full details about this great new profit opportunity now from your United Motors Distributor.



GENERAL MOTORS LEADS THE WAY—STARTING WITH **Delco-Remy** ELECTRICAL SYSTEMS

DELCO-REMY • DIVISION OF GENERAL MOTORS • ANDERSON, INDIANA



Always change the valve when mounting new tubeless tires

Every time you install a new tubeless tire, be sure to install a new Schrader valve, too. Protect your customers' driving safety and the reputation of your tire's brand name with a new Schrader valve. Make this simple service a profitable "must." For full, built-in mileage over the entire life of a tire, the valve should be as new as the tire.

Tubeless business—changeover, repair, replacement—is growing every day. Be ready with complete Schrader service.



A. SCHRADER'S SON • Division of Scovill Manufacturing Co., Inc.
BROOKLYN 38, NEW YORK

Schrader®
a division of **SCOVILL**

FIRST NAME IN TIRE VALVES
FOR ORIGINAL EQUIPMENT AND REPLACEMENT

SPORTS PAGE

Laughing River

ROSCOE, N. Y.—Probably if a fellow looked up Willowemoc in a good encyclopedia he'd find it was an Indian word meaning "Place of the Evil-smelling Fishermen" or something equally romantic. It is pleasant to fancy that the name was created by some early angler trying to imitate by phonetic spelling the chuckling, gurgling, chortling, gasping sounds of repressed, derisive laughter which the river makes when some booted oaf with a fly rod wades into it.

Harry Darbee, the fly-tier, had recommended something small and dark to tempt the trout during the bright hours of early afternoon. The stream behind his cottage, which is in the stretch restricted to fly-fishing, was laughing fit to split at the city guy offering a tiny black gnat. To the city guy, sensitive about his fly-casting technique, it was no laughing matter.

There were a dozen, perhaps two dozen casts in a stony run above the bridge. Then a little tongue of water spurted up near the fly. It was a slap rather than a strike, just a nose-thumbing token to indicate that fish were present and waiting for the angler who could prove himself.

This angler couldn't, though in the next several hours he did get the hook into one pretty little brown trout, too young and inexperienced to watch his diet. He was shaken off lightly, and as he splashed back to safety there was a fair rise at the head of a tan submerged rock a little upstream.

Fish on a Diet

This fish kept right on working, but not on any of the patterns offered. One cast with a gray spider brought him out from under the rock but he didn't offer at the fly. For a moment or two he was silhouetted at full length



VIEWS OF SPORT
By Red Smith

against the tan background, then he moved back to his original position and went on feeding imperturbably on invisible tidbits.

Just above him, another trout lay almost perfectly still with his head between two small stones. Two others loafed in midstream, rolling occasionally with a silvery flash. One appeared to be a rainbow, for in the clear water a suggestion of color could be made out along his side. Now and then shadowy shapes moved by at a leisurely pace, cruising fish taking their ease on a summery afternoon.

Birdsong spiralled out of the mottled woods. Chances are it was only imagination which lent a jeering note to some of these calls.

"When you saw those trout," Harry Darbee said that night, "you should've gone down after them with nymphs or wet flies."

"We thought of that," he was told, "about the time it got pitch dark and we were quitting. How about tomorrow?"

Man Named for a Fly

"Sam," Harry said, "why don't you guide them tomorrow?" Sam Hendrickson, of Homer, N. Y., had come in bubbling with pleasure over his day on the East Branch of the Delaware. In the morning he had worked

(Continued on page 87)

When you sell 'em tell 'em about



SUNOCO CUSTOM-BLENDING

*New...
thriftier way
to buy gas
keeps your customers
happier with
the cars you sell!*

If you're in the business of selling cars, the way those cars run is vital to your success.

No one knows better than you how much a gas mileage complaint, or an engine knock "beef" can hurt your customer relations.

And, in many cases there's nothing you can do about it for the simple reason that the customer is buying the wrong gasoline.

For this kind of problem, Sunoco is an easy answer. This new gasoline system . . . Custom-Blending assures every motorist . . . every one of your customers . . . the precise octane his particular car needs for peak performance at the lowest possible cost per mile.

Sunoco's miracle pump custom-blends six dif-



ferent gasolines . . . all top quality . . . six different octane strengths to precisely fit *any* car! There's never been an easier way to eliminate all of the customer complaints that are due to insufficient octane or excessive gasoline costs. Recommend Sunoco's Custom-Blending to your customers! You'll be certain of each car getting the *right* octane it needs at the *right* price.

© 1958, SUN OIL COMPANY



mister

jobber executive

MOTOR AGE: JOBBER EXECUTIVE EDITION

Seat Belts Would Reduce Fatalities

Use of seat belts to control ejection would reduce auto traffic fatalities by 25 per cent. This was reported by the Automotive Crash Injury Research project of Cornell University Medical College.

Of 1,000 accidents, findings show that 72 per cent of the persons suffer head injuries. Top causes were: (1) Striking steering wheel. (2) Ejection from car and (3) Hitting instrument panel or windshield. Those thrown from car face five times greater risk of being killed than those remaining in car.

Don't Look For Big Tax Cuts

No major tax cut in sight this year. Repeal of 3 per cent excise tax and possible improvement in small business tax rules will end the tax cutting for 1958.

Provision of the small business tax bill permitting small corporations with 10 or fewer stockholders option of being taxed as partnerships appears certain to be included in any legislation this year. The measure, however, will have to be moved fast before adjournment.

Amendments to Flammable Liquids Code

Amendments to the Flammable Liquids Code have been adopted by the National Fire Protection Assn. Some of the amendments are as follows: Dikes surrounding flammable liquid storage tanks are now limited to a height of six feet.

All vents on above ground flammable liquid tanks designed for over 0.5 pounds pressure must be arranged to prevent localized overheating of shell of tank in event of fire. A new section on pipe joints in flammable liquid piping has been added.

Inflation to Follow Uptur?

Inflationary pressures are strong. This year's budget deficit of \$3.7 billion, according to the government, will surge to between \$10 and \$13 billion next year.

Personal income is again rising as employment rises. Family savings are at a record high. Credit funds are again readily available to businessmen. Consumer credit is again rising, hitting \$43 billion at the end of May.

Charters to Auto Youth Chapters

The "Future Automotive Technicians of America" club has issued charters to six local chapters in Minnesota. This club has been officially recorded as a national and state group by the state of Minnesota, May 29, 1958. NSPA is charter sponsor of the club.

The purpose of the organization is to attract the youth of the country to the automotive industry. Opportunities for careers in the automotive industry can be brought to high school students through membership in these youth clubs.

SBA Doing Booming Business

The Small Business Administration is established five years. It has been one of the strongest aids in helping small companies weather the storms of tight money and recession. During the past year, businessmen have used the lending programs of SBA to ride out business setbacks, secure needed inventories, modernize or expand their facilities.

In May, agency set new record by approving 606 loans for a total of \$28.6 million. This was 60 per cent more than in same month a year ago. In addition, it approved 322 disaster loans for \$5.6 million.

Operation JOBBER

Check List for Business Managers

A GOOD looking store will bring the customers flocking. Good selling will keep the money rolling in; good service will bring the customers back. That sounds like a good business combination yet there is one more ingredient. That's right. You guessed it. GOOD BUSINESS MANAGEMENT!

If your records are not sound, your operation not well managed, those dollars will be going to someone else before long. Your business may well deteriorate into an unprofitable headache.

Check your methods and procedures. See for yourself how you stand on a Management Checkover List:

As regards adequate records—do your records show your profit position daily, weekly or monthly?

Are these records complete enough? Are sales broken down by main products and services?

Do you take a physical inventory? Is it on a monthly, quarterly, semi-annual, or annual basis?

Are you satisfied with the way your records are kept?

Is your bookkeeping cost "in line"?

Office Functions

Is your general accounting system modern?

Does your credit department function properly?

Do you have a sound purchasing policy?

Is purchasing closely tied into stock control?

Does your stock control plan give you correct information?

Do you have a definite defective merchandise return plan?

Is store maintenance adequate?

Does your receiving system operate fast and accurately?

Are present and near future warehouse and storage facilities: Large enough? Too large?

Are you well stocked in terms or your trade-in supplies? Do you have *too many* slow movers? Is your turn-over by lines good?

Do you have a modern credit system? Is it under the control of one person? Are your collections: Good? Fair? Poor?

Do you have an effective system to follow-up and collect past-due?

Are your expenses within sound limits? Do your records reflect *accurately* and *quickly* when expenses need special attention? Do you know *how* and *when* to take action on expense control?

Are you satisfied with the performance of:

1. Office employees?
2. Counter salesmen?
3. Outside salesmen?

Are your employees working with you?

Do you pay fair, competitive wages?

Do you have good sources for getting men? Is your employee turn-over reasonable? Do your employees accept suggestions and follow them well? Do you have an incentive wage plan for non-commission employees? Is it producing good results?

Outside Sales Personnel

Is your outside sales force as good as you think it should be? Do your counter salesmen do a good job waiting on customers?

Are telephone orders handled quickly, efficiently? Are mail orders given the same prompt attention? Are advertising displays put up regularly?

Are shop orders:

1. Written up correctly?
2. Quoted properly?
3. Scheduled for *promised delivery*?
4. Invoiced with adequate information?
5. Picked up and delivered on time?

The above Business Management reminder and check list is by no means complete, but if there were an excessive number of items that could be improved, then your course to better business management and increased profits is definitely established.

*signs
of the
times . . .*



Members of N.S.P.A. display satisfaction following their graduation from Ohio State University's Wholesale Management Executive Course, June 15-21. Sponsored by National Association of Wholesalers, seventy-six executives (the largest class in history) studied the latest methods of management in wholesale distribution.



Albert Clark (second from left), Gulf service station owner in Albany, Georgia, receives a \$1,000 U.S. Savings Bond from John Dods, Jr., National Accounts Sales Manager, Purolator Products, Inc. Clark is among five grand prize winners in Purolator's \$55,000 Seal of Protection Sweepstakes. At far left is H. S. Glancey, Marketer, TBA and Specialties, Gulf Oil Corp. Far right is the late Mayor William McAfee, Albany.

Jobbers Report '57 Sales Growth

A five per cent sampling of after-market jobbers reported a six per cent sales increase for 1957. This was disclosed by 410 jobbers who returned the 17th annual financial survey of Motor and Equipment Manufacturers Association.

Despite the general business recession, wholesalers' sales rose to \$164,565,17. Gross margin moved slightly upward accompanied by expenses. While final sales net profit dipped one-tenth of one percent, earnings were better dollar-wise. Return on invested capital remained steady, and much of the profit was reinvested, principally in trading assets.

Reported Loss Operations

A greater number of concerns reported loss operations, 36 as against 29 in 1956. However, several cases last year were just under the break-even level. In 1955 there were 31 deficit operations and 57 in 1954.

Maremont Adds Sales Managers

Three new divisional sales managers were recently announced by the Maremont Muffler Division, Chicago.

Don Turner, formerly Northwest sales manager, to manager of the west coast division. He will cover Arizona, California, Idaho, western Montana, Oregon and Washington.

Sam Steed, with headquarters in Houston, will manage the Southwest, covering most of Arkansas, Texas, Oklahoma and a portion of Kansas. John Carlson assumes management of the Midwest division.

Statement by NSPA and MEWA Reorganization Committees

An article appearing recently in a trade newspaper, resulting from a private conversation with Motor and Equipment Wholesalers Association personnel, purporting to speak for the MEWA—NSPA Reorganization Committees, has had the effect of indicating a wide area of disagreement between certain elements of the Reorganization Committee.

Announce Continued Progress

The Reorganization Committee at a formal meeting held at Chicago, Illinois, on June 11, 1958, announced continued progress with no important disagreement and, further stated, that legal counsel had been retained to prepare a constitution and by-laws for committee approval and for subsequent submission to the members of NSPA and MEWA for their approval of a newly formed industry-wide association, and thereafter the dissolution of the existing NSPA and MEWA.

The Reorganization Commit-

tee further stated that the present plans for the new association comprehends both manufacturer and wholesaler divisions with particular provisions for State and Regional Automotive Wholesaler Associations to become a part of and have a voice in the administration of the new association.

The Committee further reported that until the constitution and by-laws have been approved, no consideration has as yet been given to the name of the new industry-wide association.

All Members Present

All members of the Reorganization Committee were present at the meeting held at the Palmer House in Chicago on June 11.

Authorized by the joint Reorganization Committee of MEWA and NSPA.

**JAY T. DAVIS, Chairman
MEWA Reorganization Committee**

**EDWARD GAMMIE, Chairman
NSPA Unification Committee**



William Clausen, former executive vice president and general manager of San Francisco's General Metals Corp., named president of Aluminum Industries, Inc., Cincinnati.

Thompson Products Signs Merger

Thompson Products, Inc., Cleveland, has signed a merger agreement with its Los Angeles affiliate, The Ramo Wooldridge Corporation. The resulting company will be named Thompson-Ramo-Wooldridge Corporation.

J. D. Wright, Thompson president, will serve as Board Chairman and Chief Executive Officer. Dr. Dean E. Wooldridge will act as President, and Dr. Simon Ramo as Executive Vice President. Other officers will continue in their present capacity.

Thompson Products, begun in 1900, produces parts and systems for the automotive and aircraft markets. Ramo-Wooldridge, now in its fifth year, conducts research, development and manufacturing in electronics and allied fields.

New Warehouse

The Owatonna Tool Company, Owatonna, Minnesota, has announced the opening of a new Chicago warehouse. Located at 1923 Indiana Avenue, the warehouse is designed for 24 hour delivery.



Discussing plans for introduction of the Scranton "Cellomatic" battery, containing replaceable plastic cells, are (left to right): Roy L. Silver, vice president of Bauer and Tripp, Inc., agency for the account; Morry Hollow, president, Scranton Battery Corp.; Alan R. Tripp, agency president; and Joseph H. Saunders, Scranton vice president.

ETI Reaffirms Show Resolution

A resolution adopted in June 1957 by Equipment and Tools Institute requesting regional members to refrain from automotive shows for two years was reaffirmed by a recent ETI general meeting.

The resolution cited the expense of promoting regional shows—both to members and their distributors. This and the confidence expressed by members that a two-year interlude will not seriously reduce their sales volume prompted the committee's initial support.

However, three instances have been provided for regional shows during 1959-60. These involve shows preceded by the annual convention of Motor and Equipment Wholesalers Association, the annual convention of National Standard Parts Association, and the annual meeting of Motor and Equipment Manufacturers Association.

Hein-Werner Corp. Acquires Company

Hein-Werner Corporation of Waukesha, Wisconsin has acquired Fox River Manufacturing Company of Oshkosh, Wisconsin. The company will function as a division of Hein-Werner. Manufacturing facilities will remain at 422 Marion Road, Oshkosh.

Display Trucks

Radiator Specialty Company, Charlotte, North Carolina, has purchased a fleet of trucks to demonstrate the Fan-o-matic fan release unit. The special walk-in trucks will also display Solder Seal product samples, literature, other material.

Four New Members For Champion Club

The Champion 100-Mile-An-Hour Club added four new names to its roster of racing "Champions" recently. Event was at the club's annual pre-race meeting at the Indianapolis Athletic Club.

The Club dates back to 1934. Then Dave Evans, originator of the idea, became the Club's first president. Sponsored by the Champion Spark Plug Company, qualification for membership entails driving the complete Indianapolis "500" at an average speed of 100 miles an hour or better. And without relief. Currently there are 58 active members.

New drivers joining the Champion 100 - Mile - An - Hour Club were Gene Hartley, Johnny Boyd, Marshall Teague and Jack Turner.

Presiding over the meeting was the Club's retiring president, Jimmy Jackson. Mauri Rose, three-time winner of the Indianapolis 500-Mile race, was elected the new president.



Sam Hanks (fourth from left), 1957 Indianapolis 500 winner, discusses this year's race with officials of The Bingham-Herbrand Corporation. From left: R. C. Tyson, Southwestern representative, Herbrand Division, The Bingham-Herbrand Corp.; F. R. Middleton, field sales manager; T. A. McMullen, vice-president and general manager; Hanks; and A. R. Karlevetz, Herbrand's general sales manager.

Company Control

Control of General Trading Company and its 42 wholesale branches were acquired recently by H & B American Machine Co., Inc., Chicago. General Trading recorded 1957 sales of \$12,541,376. H & B and its subsidiary, Big Boy Manufacturing Co., had a combined volume of \$17,590,615 in their latest fiscal years.

For each share of General Trading's stock, H & B offered to exchange three shares, \$12 principal amount of its 5% Collateral Notes, and \$5 in cash.

Company Move

Auto Equipment and Service Co. of Philadelphia has moved to spacious new facilities at 12 St. and Glenwood Ave. Open House was held last month under the direction of president R. K. Harp.

Concomitant with this move Mr. Harp announced the appointment of Ted K. Harp to the post of vice president and assistant general manager.



William Wodicka, former manager of St. Louis' Chevrolet Dealer's Association, appointed executive secretary of The Ohio Automotive Wholesaler's Association.

AWTA Executives Pledge Assistance

New and contemplated state associations of wholesalers were given a boost recently by executives of Automotive Wholesalers Trade Association at their annual meeting in Dallas. The executive members pledged complete assistance to such groups.

Kentucky, Ohio, South Carolina, Arizona, Illinois and Colorado have begun such groups.



Appropriate smiles adorn faces of this graduating class from a recent Rochester Carburetor school held in Bedford County, Tennessee. Sponsored by Bedford's Independent Garagemen's Association, classes were conducted at the Bedford's Auto Supply Company.

NSPA Calls For Senate Bill Aid

The National Standard Parts Association is calling upon the automotive service industry to support Senate Bill S. 3899. Introduced by Senator A. S. Monroney (Oklahoma), the Bill would amend Public Law 199 by removing provisions for size and weight limitations of Fourth Class (parcel post) Mail.

Representing NSPA, J. Austin Latimer, the Association's Washington Legal Counsel, appeared June 26 before the Senate Post Office Committee. Latimer strongly urged the Bill be voted out of the Committee for vote on the Senate floor at this session of Congress. Latimer explained the three reasons why S. 3899 should be passed to amend Public Law 199: (1) the difficulty of having to break up shipments of automotive items into smaller packages if Parcel Post is used; (2) the increased cost and inconvenience of other methods of shipment in place of Parcel Post; and (3) the lack of uniformity between different post offices concerning points of origin and destination.

NECROLOGY

Richard C. Miesse, district manager of Moog Industries, Inc., and his wife died June 11 in an automobile accident near Little Rock, Arkansas. Mr. Miesse's territory covered Arkansas, Oklahoma and part of Kansas.

E. T. Roach, midwestern sales manager of Maremont Automotive Products, Inc., died June 5th. Mr. Roach, a 25 year veteran of the automotive replacement parts business, was a former district manager of the Detroit territory.



Harry V. Duffy

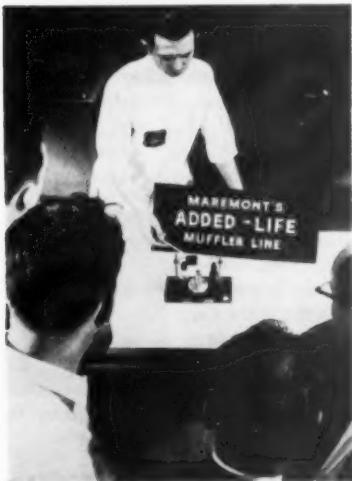
Harry V. Duffy, vice president of the Chilton Company and Director of the firm's Printing Division, died July 19 in Philadelphia.

Mr. Duffy had been with the Chilton Company and its predecessors since 1912. He rose through the ranks of the Printing Division to become its chief. In addition to being a senior officer of the company, he was a member of the Chilton board of directors.

Mr. Duffy was one of the original members of the Printing Industries of America Associates.

Black & Decker Appoints Horner

The Black & Decker Manufacturing Company, Towson, Maryland, has appointed Raymond G. Horner to the newly-created position of Vice President of Marketing. He is a former vice president of sales planning. Horner's duties will encompass both sales planning and general sales managing.



Maremont Automotive Products, Inc. is using an alloy-coated steel to defend against rust in its mufflers. Here, during the company's "accelerated wear test," a technician points out test results.



MEWA's Executive Board, gathering at Chicago's Conrad Hilton Hotel recently, adopted a resolution reaffirming the association's support of the Pacific Automotive Show, other product shows. It also recommended the establishment of a trade show board (or committee) to avoid date conflicts, scrutinize show activities.

Automotive Wholesalers' Sales and Inventories

Data from Bureau of the Census, Department of Commerce

Region	Per Cent Change				
	Sales			Inventories	
	May 1958 from May 1957	May 1958 from Apr. 1958	5 Mos. 1958 from 5 Mos. 1957	May 1958 from May 1957	May 1958 from Apr. 1958
New England.....	-3	0	-9	+6	-1
Middle Atlantic.....	-4	-2	+3	-6	+2
East North Central.....	-18	-2	-6	+6	+3
West North Central.....	+7	+6	+5	+2	+1
South Atlantic.....	-3	+2	-1	+5	+3
East South Central.....	+4	-3	+1	0	+1
West South Central.....	+13	+4	+4	+11	-1
Mountain.....	...	+11	...	...	+1
Pacific.....	+15	+11	+1	-5	+5
United States.....	+5	+1	+8	+9	+2

Indicators of Business Activity

These figures are based on latest thirty-day reports

	Latest Data	Month Before	Year Ago	Percentage Change from— Month Ago	Percentage Change from— Year Ago
PRODUCTION					
Motor Vehicles (Units)	406,857	424,273	593,387	-4.1	-31.4
Industrial—F. R. B. 1947-'49=100 (Adj.)	127	126	144	+0.8	-11.8
SALES					
New Cars.....	420,000	423,484	517,043	-0.8	-18.8
Replacement Tires (Units).....	6,219,854	6,183,169	5,786,717	+0.6	+7.5
Manufacturers (\$ Millions)					
Durable Goods.....	\$11,668	\$11,532	\$14,296	+1.2	-18.4
Non-durable Goods.....	\$13,448	\$13,413	\$14,321	+0.3	-6.1
Department Stores, 1947-'49=100.....	133	131	135	+1.5	-1.5
GENERAL					
Consumers' Price Index, 1947-'49=100.....	123.6	123.5	119.6	+0.1	+3.3
Civilian Employment.....	64,981,000	64,061,000	66,504,000	+1.4	-2.3
Unemployment.....	5,437,000	4,904,000	3,337,000	+10.9	+62.9

Motor Age's Who's Who



Albert A. Hally has been appointed vice president for Marketing for the Campbell Chain Company, York, Pa.

He joined the company in 1954 as sales manager.

Donald E. Cluck has been promoted to the position of director of sales of Simoniz Co., Chicago.

John N. Felton has been appointed manager of the Memphis Automotive Branch Office of Wagner Electric Corp. **E. W. Wells** has been appointed manager of the company's Omaha Automotive Branch Office.



Norman Sobol has been appointed sales manager for the new After-Market Products department of the C. M.

Hall Lamp Co. This department will expand company's parts and accessories business.

Lee Sander has been named Eastern zone manager for Purolator Products Inc. He will direct sales for the National Accounts Division of the company from Maine to Fla., west to Ohio. **Willard S. Holland** has been appointed to fill the position of special field representative for the Eastern U. S.



Walter J. Scowcroft has been promoted to vice president in charge of Sales in the Automotive Division of the Tobin-Arp Manufacturing Company of Minneapolis, Minnesota.

J. W. Wood has been appointed general manager of the new Automotive Division, located at Flexonics Corporation's, Inkster, Michigan plant.

Blaz A. Lucas, Jr. has been appointed manager of sales for the Ingersoll Products Division of Borg-Warner Corp.



Dr. Alfred K. Wright, left, vice president in charge of engineering for Tung-Sol Electric Inc. has been given the added duties of vice president in charge of operations and engineering. **Paul Scharninghausen** has been named vice president and general manager of the radio and television tube division.



John H. Smith, left, is new territory manager in New York City, upper N. J. and Conn. for the Monroe Auto Equipment Co. **J. K. MacKenzie**, right, is the new territory manager for Pa., Del., Md., lower N. J. and D. of C. **John L. Sullivan** is the new territory manager of New England and upper N. Y.

Olin Mathieson Chemical Corporation has appointed four vice presidents to head its new divisions. They are: Chemicals, **Edward Block**; Metals, **Jess E. Williams**; Packaging, **Robert H. Evans**; and Energy, **Carroll Cops**.

Walter D. Baldwin has been appointed vice president in charge of the newly formed automotive sales department of the United States Rubber Co. He was formerly assistant general manager of the company's tire division.

J. Justin Basch has been appointed to the new position of marketing vice president of Oakite Products, Inc.

H. W. Dunton was appointed Chicago zone manager for United Motors Service, Division of GM succeeding **P. T. Cody**. Cody has been named Los Angeles zone manager, succeeding Dunton.

Ralph R. Staal has been appointed sales manager of Marquette Manufacturing Co., Inc., of Minneapolis, Minn. He joined the company in November, 1957.



Robert R. O'Neill became divisional manager of sales to the automotive repaint trade, with headquarters in Los Angeles for the Behr-Manning Co. **John D. Anderson**, divisional manager with headquarters in the same city, has been assigned additional territorial responsibility in general trades sales.

William J. Hennessy has been appointed National Product Development manager for Kelite Corporation.



Leonard O'Brien has been appointed office manager of the Speed-Way Manufacturing Division of Thor Power Tool Company. The Division is located at LaGrange Park, Ill.

MOTOR AGE

newcoop

*Annual Major Body Change
Small Car Developments
Tire Ad Stickers
SBA Now Permanent
Detroit Auto Show Date
Octane Ratings Up
National Lottery Bill*

In the days ahead.... HERE'S WHAT TO LOOK FOR!!!

Yearly Body Change Considered By Chrysler

CHRYSLER CONSIDERING PLANS for major body change yearly.... No decision has been made yet.... Corp. presently has two cars clayed up for 1961.... One a facelift of 1960 model.... Other, a complete new body.

Chrysler officials lean toward two-year cycle.... Would mean a minor change in 1961, a major one in 1962.... Then a major change every two years thereafter.... Corporation has been on a three-year cycle, with next major change coming in 1960.

Three Basic Cars For S-P

STUDEBAKER-PACKARD'S 1959 LINE will consist of three basic cars.... Include 113-inch wheelbase model (replacing present 116.5-inch job).... This will be designed for cab market.

Also a new, small 108-inch economy car.... And a 120.5-inch top-of-the-line Hawk series, offered currently.... No decision to drop Packard nameplate has yet been reached.

U. S. Small Car Developments

LATEST DEVELOPMENTS on small car projects.... Chevrolet now taking bids from tool and die shops for smaller, lighter car.... Assembly place: Willow Run plant.... Target introduction date: January 1960.

Chrysler reversed earlier thinking to import small foreign car to U.S.... Corporation weighing possibility of building its own in this country.... Where?.... Present Dodge main plant in Hamtramck, Mich.... Dodge assembly would be shifted to huge 4.5 million sq. ft. Jefferson Ave. plant.

AMA's "Who's Who"

THE MOST COMPREHENSIVE "WHO'S WHO" of Automobile Manufacturers Assn. has just been released by Assn.... Together with its 1958 annual report to members.... It lists activities of AMA committees and members.... Also lists chronology of association's achievements during past year.... Its goals for future and operations, services that are available are stated also.

Price Cuts Can Help Retailers

PRICES OF MANY PRODUCTS shipped to dealers can be reduced.... if manufacturers wish.... Ending of 3 per cent federal transportation tax permits lower hauling costs.

Factories could help retailers if they cut prices by amount of transportation tax savings.... Law that repealed this tax extends tax on cars, parts, accessories for another year.

Bill on Sales & Service Bogged Down

AREA SALES AND SERVICE responsibility bill, S. 3865, bogged down.... It would let auto factories give bonuses to dealers for sales, service in given areas.

But little hope is sighted for passage by Congress.... Reason: Too many points of disagreement.... Senate Commerce Committee staffers have tried to work out an acceptable bill.... Job seems hopeless, though.

NADA Bustin' Out All Over

GROWTH SPACE IS BEING LINED UP at NADA headquarters.... NADA'S eight-floor building in Washington will be doubled in size.... For occupancy by fall, 1959.

Bigger building is to give NADA more than 100,000 square feet of floor space.... With added room for tenants.... And parking levels to take care of 50 to 75 cars.

May And June Sales Evaluated

JUNE WAS ABOUT AS GOOD A MONTH AS MAY for gasoline service stations.... Advance government returns show stations had sales of \$1.334 billion in June.... Compared to \$1.335 billion in May.

Automotive retailers received less for June than for May sales.... Sales in June came to \$2.990 billion.... Those in May amounted to \$3.082 billion.

A Difference Of Opinion

GEORGE ROMNEY, AMERICAN MOTORS PRESIDENT, still does not see eye to eye with NADA.... Despite meeting in Washington with NADA executives in July.... Earlier, Mr. Romney complained of what he considers "dealer union" aspect of NADA.

Conferees reviewed ten-year-old NADA-AMA joint recommendations at July meeting.... There's to be further study of differing views.

Stickers Prevent Mis-Leading Tire Ads

STICKERS NAMING "LINE" of some auto and truck tires will be showing up.... By Federal Trade Commission order. FTC tire advertising guides become effective Aug. 27.... But to take care of current stocks, non-first-line tires with misleading names are to carry sticker.

If a first-line tire is called "Standard".... And a second-line is "Super Standard".... The "Super Standard" sticker must show tire is second-line.

Small Business Administration Now Permanent

SMALL BUSINESS ADMINISTRATION gets permanent status.... New law makes SBA a full-time agency.... It now may lend up to \$350,000 to an approved retailer or other small businessman.... Former limit was \$250,000 to any one borrower.

Most of SBA loans are shared with banks.... Top interest rate SBA may charge for its money is 5% per cent.

De Soto To Continue As Separate Division

CHRYSLER CORP. HAS NO PLANS to "merge" De Soto Div. with any of its other car divisions.... De Soto will continue to operate on autonomous basis.... It will maintain its separate engineering, product, market and advertising operations.

Division headquarters will be located at Chrysler Division's administrative building on Jefferson Ave., where De Soto will lease space.

Japan's Small Car Entry

LATEST FOREIGN CAR ENTRY comes from Japan.... Two Japanese companies--Nissan Motor Car Co., Ltd., and Toyota Motor Co., Ltd.--put four-door sedans on sale in U. S.... Prices range from \$1850 to \$2200, delivered in Los Angeles.... They claim gas mileage of from 25 to 35 miles per gallon.

Lowest-Priced Plymouth To Be Dropped

PLYMOUTH WILL DROP lowest-priced Plaza line in '59.... Present Belvedere line will become division's mid-priced model.... Fury will be top model in regular line.... New, dressed up model, called Sport Fury will compete with Chevrolet's Impala series and Ford's top series.

New High For Retread Tire Sales

RETREAD TIRE SALES EXPECTED to reach new high this year.... According to Firestone Tire & Rubber Co., car and truck retreads will exceed 34 million units.... An increase of 2 million over last year.... Dollar sales estimated in area of \$650 million.

Willys Going Brazilian

WILLYS CAR, DISCONTINUED IN '55, may reappear.... Willys Motors, Inc., announced that its Brazilian affiliate will start building car by 1960.... Aimed primarily at Brazilian market, company is not overlooking possibilities of exporting car to U. S.

New Luxury Pickup Truck Coming

LUXURY PICKUP TRUCK similar to Ford's Ranchero will be offered by a major truck maker next year.... Like Ranchero, plush truck will be built on a passenger car chassis.... With body modified from company's station wagon.... Tentative name for new truck is "El Camino".

Date Set For Detroit Auto Show

NOVEMBER 22 SET AS DATE for 46th annual Detroit Auto Show.... It will be the country's first major dealer-sponsored showing of 1959 cars.... Marks earliest date for show since World War II.

Tax On U. S. Sale Of Imported Car

TEN PER CENT FEDERAL TAX is placed on first U. S. sale of an imported car.... Even if car is a used one.... So reads new Revenue Ruling 58-297.

Tax is collected on sales by manufacturer, producer, or importer of autos.... It makes no difference to government tax men if car is new or used.

Octane Ratings Go Up

OCTANE RATINGS OF GASOLINE still go up.... Latest Interior Dept. figures put ratings of all types at new highs last winter. On basis of 6,790 samples from all U. S. areas.

Average octane rating of regular gas was 90.... Premium grades, 98.... Super grades, 101.1.... Ratings in summer 1957 were 89.8, 97.6, and 100.9 for these three grades.

Aid In Enforcing Antitrust Act Shapes Up

AID IN ENFORCING CLAYTON (ANTITRUST) ACT has taken shape in Congress.... Senate passes S. 721, to give speedier enforcement to Federal Trade Commission cease-and-desist orders under the Act.

Clayton Act bars unfair pricing, other practices that destroy competition.... FTC for years has sought a law to make enforcement easier. ... S. 721 offers this desired help.

Vacation Travel Spurs Repair Work

GARAGES, SERVICE STATIONS may be doing more business than ever with drivers on vacation.... Reports to American Automobile Assn. point to more vacationists by car this year than in 1957.... When the number was 80 million.

Pre-vacation work on cars should be increasing, too.... Because many drivers expect to travel farther than in previous years.

Is Buying Pattern Changing?

WHAT DO PEOPLE BUY, U. S. LABOR DEPT. wants to learn.... Are more people trying to handle their own repairs and not buying service?.... Labor Dept. asks Congress for \$5 million to find this answer, other answers.

Government checks prices of 300 items a month to get a consumer price index.... But buying pattern is changing.... And index may be out of date.

What About A National Lottery?

REP. FINO, R., N. Y., RENEWS HIS PLEA for a national lottery.... This time he offers signatures of 20,000 persons backing his lottery bill, H. R. 3520.

He figures lottery would bring in \$10 billion a year for the U. S. Treasury.... Allowing government to ease the tax bite.... But tax-writing House Ways and Means Committee fails to support the bill.



From this old wooden structure grew Spangler's husky volume business and buildings of today—see next page.

FROM THIS / came SUCCESS VOLUME & PROFITS

When you turn to the next pages note the comparison between the "beginning" and the "today" buildings

NEARLY everybody in automobile-conscious Indianapolis is familiar with Bill Spangler's red-brick garage. They have good reason. It's been serving the public reliably for 35 years at the same location, give or take several feet. To say that its

changed considerably from its original appearance is like comparing today's Ford with the nostalgic 4-cylinder model.

Sitting a bare stone's throw away is Spangler's first garage—a small wooden
(Continued on next page)

Shop of the Month Award

... *Continued from page 37*



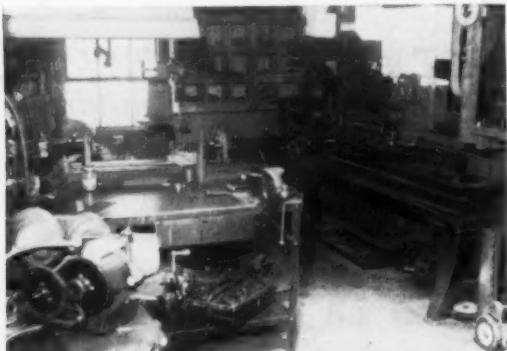
shack reminiscent of your childhood retreat. An occasional glance reminds the successful Indianapolis businessman of leaner days. Yet, Bill blatantly insists he wouldn't sell the "shack" for any conceivable price.

Genial Bill Spangler began his now prosperous business in that small 2-car shack in 1923. As a young, tireless entrepreneur, he tackled anything that even remotely suggested business. His son, Bill Jr., worked with him. The automobile industry was a doubtful infant then, and days often stretched wearily into nights.

Gradually, almost doggedly, Spangler's business increased. Within two years they left the "shack" and built a new building next door. In 1929, with the depression at full strength, Spangler bought the neighboring house and converted it to another building.

Seventeen years passed, and Bill Spangler's trade and reputation mounted. That year—1946—three more additions were added. Today, in contrast to his "shack days," Spangler employs nine full-time mechanics. His reputation includes both major

Adjacent to the working areas is this up to date machine shop with lathe, press and valve refacer.



Owner Bill Jr. pauses beside his parts department, which is just beyond the bustling main entrance.





and minor repair jobs. A perfectionist who takes professional pride in work, Spangler insists on the finest equipment and refuses to sacrifice quality workmanship for speed. He personally road tests each car before releasing it. Furthermore, each job is unconditionally guaranteed.

"Shop of the Month" Award

These, then, are some of the reasons why MOTOR AGE has selected Spangler's volume shop for the MOTOR AGE "Shop of the

One of the two lifts on this side is nearly always occupied with muffler, brake, other repair service.



Month" award. Last month the award went to a volume shop in New York state. This month, the award went westward to Spangler's in Indiana.

(Continued on page 96)

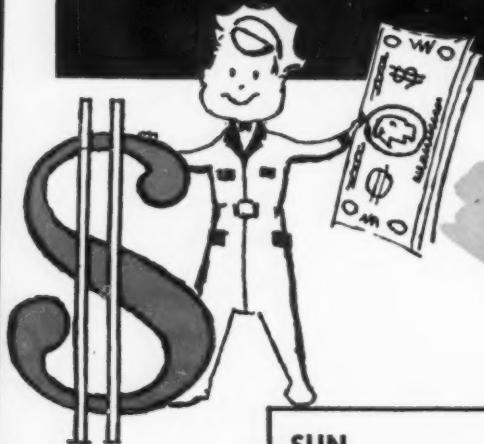
This wheel alignment area, tucked in the rear of the shop, is accessible to a large overhead door.



September 1958

ASL

MOTOR AGE'S



QUICK CHECKS FOR QUICK PROFITS

SUN.	MON.	TUES.	WED.
	1 BRAKE WEEK	2 "FOR SAFETY'S SAKE GIVE A CAR A BRAKE"	
	8 PREVENTIVE MAINTENANCE WEEK	9 "CHECKING CARS FIVE WAYS PREVENTS COSTLY DELAYS"	10
	15 ELECTRICAL SYSTEM WEEK	16 "YOUR CUSTOMER'S CAR IS ONLY AS GOOD AS ELECTRICAL SYSTEM UNDER THE HOOD"	17
	22 FALL TUNE-UP WEEK	23 "IF DURING SUMMER YOU'VE HAD A SLUMP, TUNE-UPS NOW WILL MAKE PROFITS JUMP"	24
28	29	30	

Let Motor Age's
MERCHANDISING CALENDAR WORK FOR YOU

MERCHANDISING CALENDAR

NAMES OF EMPLOYEES						
Sales						
Service						
Score						
Sheet						
First Week						
Second Week						
Third Week						
Fourth Week						
Total Monthly Sales						

THURS.	FRI.	SAT.
4	5	6
<ul style="list-style-type: none"> ✓ Check brake linings. ✓ Check brake adjustment. ✓ Check hand brake. ✓ Check master cylinder fluid. ✓ Check leaky cylinders. 		
11	12	13
<ul style="list-style-type: none"> ✓ Check clutch pedal adjustment. ✓ Check & clean battery terminals, connections. ✓ Check individual cells for gravity. ✓ Check battery hold-down clamps. ✓ Check & set regulator to specifications. 		
18	19	20
<ul style="list-style-type: none"> ✓ Check battery connections & specific gravity. ✓ Check voltage regulator. ✓ Check generator & starter brushes. ✓ Check & tighten all electrical connections. ✓ Check headlights, bulbs & turn signals. 		
25	26	27
<ul style="list-style-type: none"> ✓ Check spark plugs & ignition wires. ✓ Check distributor & point gap. ✓ Check ignition timing & compression. ✓ Check fuel pump pressure. ✓ Check, clean & adjust carburetor. 		

CALENDAR REPRINTS NOW AVAILABLE

Motor Age's Merchandising Calendar available in reprint form on request, at no cost to you. The Calendar is double size and is on special paper. This offer is limited to thirty days after publication.

Send for your free Merchandising Calendar NOW!!

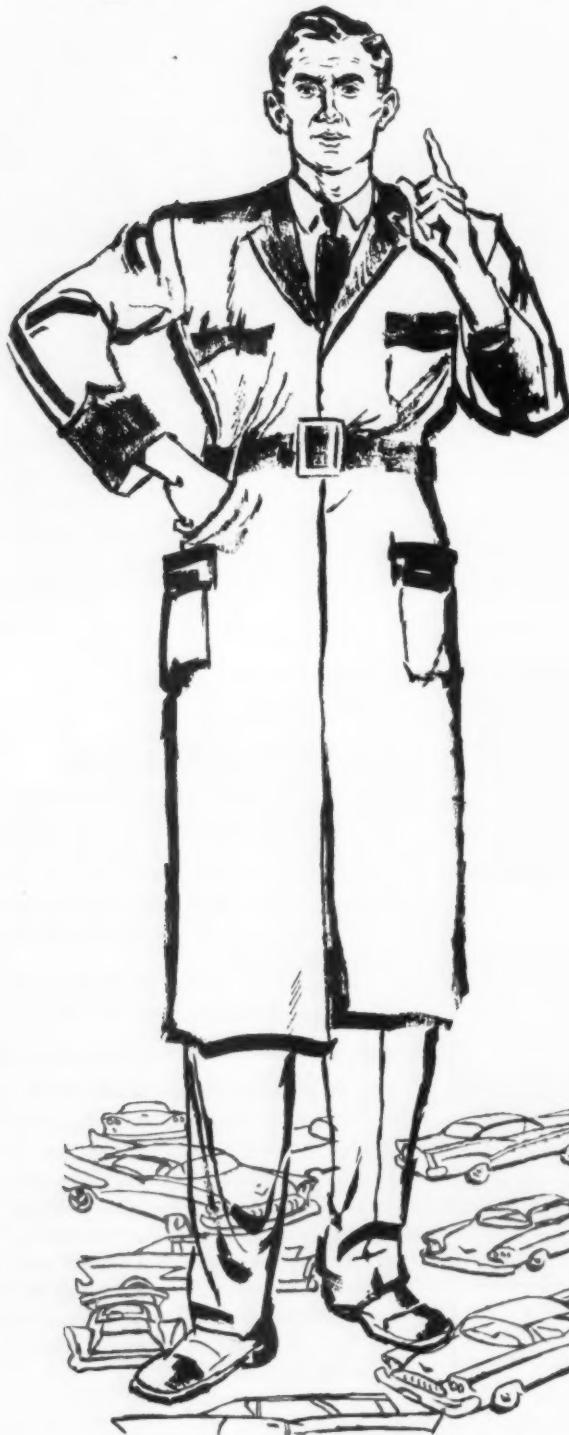
Write to the Editor of Motor Age, Chestnut & 56th Sts., Phila. 39, Pa.

HOW TO USE MERCHANDISING CALENDAR

When you receive your Calendar reprint, hang it in a prominent spot in your shop or service station. Place your employees' names in the Score Sheet. Then hold an informal sales and service contest. See who gets the highest sales score at the end of the month, by promoting sales and services mentioned in the check lists. As an incentive, offer a prize to the winner.



MOTOR AGE Management Story of the Month



Can you Save 13 Million Unsafe Vehicles?

BEFORE I finish this short talk—one person will have died as a result of a traffic accident. In our nation last year, 38,700 persons were killed in automobile accidents. A traffic death every 13 minutes.

According to facts released by the Association of Casualty and Surety Companies, our country's 1957 traffic bill came to a staggering total of \$7,255,000,000. . . . It is the highest figure in history of the auto. . . .

It is authoritatively reported that the greatest percentage of accidents can be traced to the human element—poor judgment or lack of alertness. It is said that a study of accident fatalities discloses that a very high percentage of vehicles involved were "in apparently good condition." These things I will not dispute.

However, every garage owner here knows it can be very difficult to hold a post-mortem on an automobile that has been in a collision. That frequently it is virtually impossible to

*Condensation of the Los Angeles talk
before the national convention of the
Independent Garage Owners of America*

determine whether the mechanical defect occurred prior to the accident, or as a result of it.

Figures compiled by the Inter-Industry Highway Safety Committee, on the results of their 1957 National Safety Check, showed that of the 1,400,000 vehicles checked, 19.8 per cent needed repairs. If that percentage, in this voluntary safety check, holds true throughout our vehicle registration—and certainly there is every reason to believe it does—there are some 13,000,000 vehicles operating on our highways that are mechanically unsafe. . . .

I believe you will agree with me when I say that, for the most part, the average driver isn't as familiar as he should be with the danger signals that frequently appear before mechanical failure. I make this statement because I don't believe that the majority of drivers today would knowingly risk their own lives, and the lives of others, by attempting to drive a vehicle that is not in A-1 condition. But, with our 67,000,000 vehicles on the road today, we have grown so accustomed to the automobile and heavy traffic that we take it for granted. . . .

The American public is made up of free thinkers. With this independent thinking, we are mostly prone to let a warning such as "drive safely" go in one ear and out the other, or from ignorance, consider we are safe drivers and the warning is meant for the other fellow.

There isn't much we can do about this self-satisfaction on a mass basis, but there is a lot that can be done on a personal basis,



By James A. Wheatley, Jr., Sales Manager
Grey-Rock Div. of Raybestos-Manhattan, Inc.,
and Senior Vice President, the National
Standard Parts Association

Quotable Quotes

Here are a few selections of the many "quotable quotes" to be found upon reading Mr. Wheatley's article:

"The car owner isn't interested in price alone. His interest is value. And when it comes to safety that I have been talking about, think what that interest in value is."

"The greatest boon to Highway Safety can be . . . in the garages where there is an opportunity to inspect cars properly and thoroughly and put them in top mechanical condition."

"We cannot afford the extravagance of traffic deaths nor traffic accident costs of well over 7 billion dollars a year. It is time for all of us to accept some of the responsibility of preserving lives and properties of our customers."

locally—and therein, I believe, lies the answer—it's a grass roots job.

The greatest boon to Highway Safety can be, and should be, in the garages where there is an opportunity to properly and thoroughly inspect cars and put them in top mechanical condition. I say this because, in approaching the matter on a personal, local basis, we don't give the car owner an opportunity to

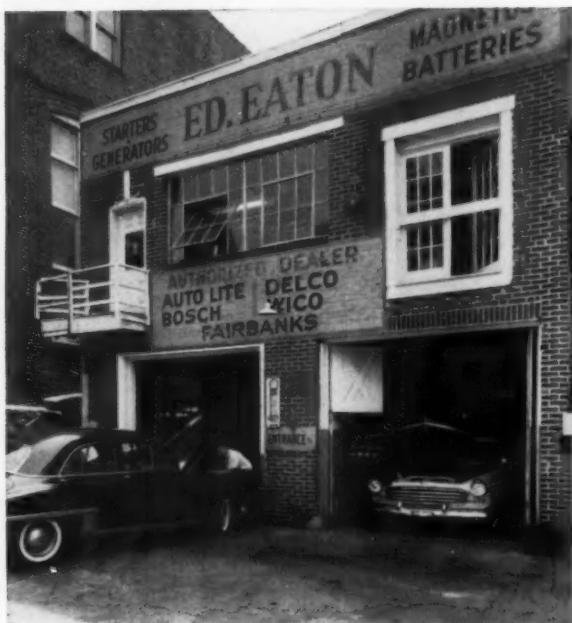
(Continued on page 94)



MOTOR AGE Merchandising Story of the Month

Latest equipment and know-how make

SURE CONNECTION FOR PROFIT!



Two-story building, above, is site of most of Eaton electrical repair work.

Shop at right is on 2nd floor and is used for rebuilding electrical units.

A quick visit to the shop of Ed Eaton to look into the formula for his high volume of electrical work



IN Chester (Penn.) nearly everybody gets his electrical work done at Eaton's. Or so it would seem to the casual observer. Around the town people are willing and proud to refer a motorist in need of electrical repairs to Ed Eaton.

For the size of his building and grounds the volume is so high that he literally has to turn away business. On a normal day it may run from two to three cars. On a "good day", up to ten.

Why this volume? How does Eddie Eaton merchandise? Has he a "formula for volume" or is it too elusive to pin down?

To begin with, we must view the man himself. Not yet 50, Ed Eaton has been fixing cars since he was knee-high to a running-board. He got his first job in 1922 as an apprentice mechanic. After working diligently eight years on the job, he was able to buy the business out. This in 1930.

Specialization in Electrical Repairs

Then and now he specialized in electrical repair and tune-up. For 28 years he has owned his own business and his two-story red brick shop—just off the 800 block of Sproul St.—has handled just about every type of electrical repair.

Besides automobiles, he repairs fire trucks and police cars. Industries too patronize his shop. His generator testing equipment ranges from 6 to 32 volt units and will accommodate diesel models. Particularly in the repair of

Ed Eaton chews reflectively on cigar in parts dept. with \$30,000 inventory



FORMULA FOR VOLUME

1. Owner-manager Ed Eaton insists on latest equipment and tools for his staff. This equipment is maintained in top working order.

2. Eaton keeps informed on the trends and changes in the industry via trade manuals and the trade press.

3. Eaton insists on careful work. Scrupulous attention to details of each repair job is standard procedure.

4. Use only quality parts in repairs and merchandise only quality accessories. You'll find the customer stays pleased.

5. Keep a well-supplied stock of parts on hand. Be wary of "shorts" and keep on top of your inventory control sheets.

diesel starters is his volume comparatively high.

The second floor of his building serves as both a parts department and a repair shop. Here three mechanics work on generators, starters, and distributors.

The parts department is remarkable in the scope of its inventory and the fullness of its stock. "We stock about \$30,000 worth of parts (net) on the average" comments stocky, cigar-smoking Ed Eaton.

"We have found that it has been a big boost to continuing our high volume." Ed goes on to point out that many times a car with an electrical breakdown needs a part that can't always be procured too easily. Like on holidays or late at night, for example. Then is when his parts stock really pays off.

On the first floor of the two-story building is performed most of the servicing and tune-up work. For tune-up he has an impressive array of test instruments including an electronic 'scope with viewing screen.

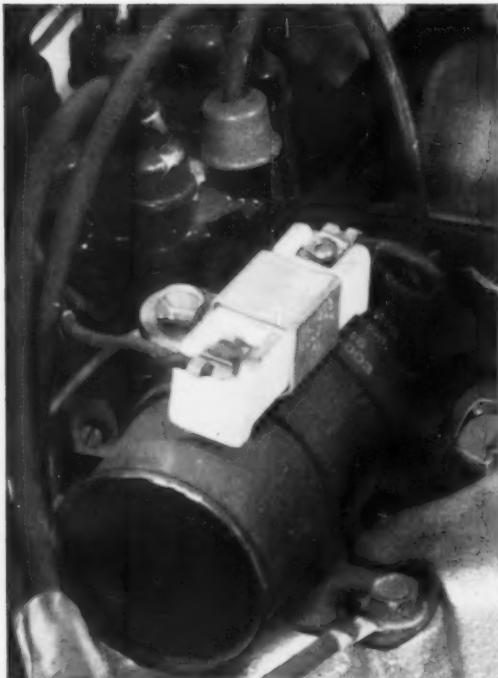
Rebuilding starters and generators contributes a big segment to his business. As

(Continued on page 98)



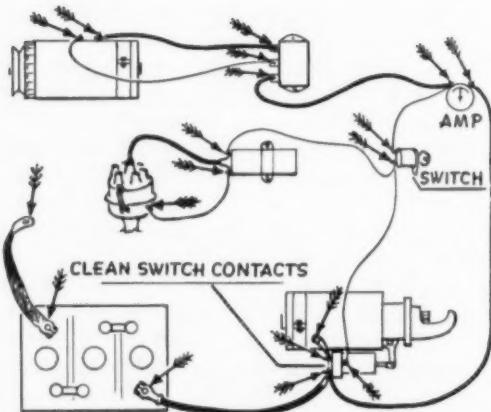
MOTOR AGE Electrical Story of the Month

ELECTRICAL CHEX THAT



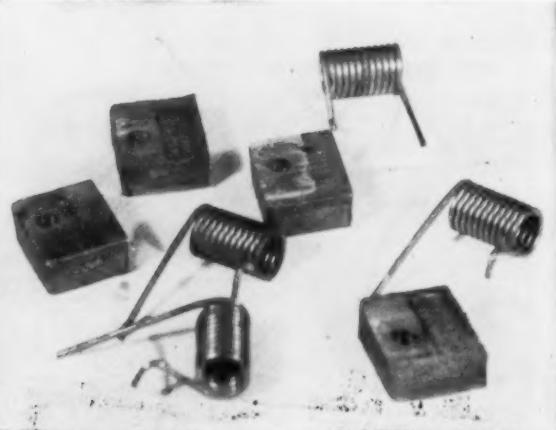
To overcome troublesome ignition resistors, test both the coil and resistor during tune-up jobs.

Inspecting distributor cap for cracks and wear.



Quick-starting is relatively assured when those points indicated by arrows are clean and tight.

Don't overlook brush springs when overhauling.



SPARK PROFITS

Where, what, and how to double check customer car's electrical system for replacement selling

WHAT do you think topped the list for failures last year in road breakdowns? That's right: battery and electrical failures. So reports the American Automobile Association.

Not a bad selling point to your customers is it? What are some of the electric checks that you can make to spark profits?

We can well start with the battery. Since the battery is the central plant for the electrical system, it needs periodic checking. The battery's top should be kept clean and uncorroded. You can clean the battery top with a stiff bristle brush and wipe off with a cloth moistened with ammonia or baking soda in water. Inspect cables, replace if doubtful. In-

By John K. Montgomery, Technical Editor

spect tapered terminal posts to see that they are not deformed or broken. Clean the battery terminals and the inside of the battery cable clamps. Coat surface with a mineral grease or vaseline after terminals are tightened. Inspect cradle and adjust hold-downs.

Inspect sealing compound for leaks. Reseal with fresh compound if necessary.

Make hydrometer tests. If liquid is low fill with water and request owner to return the following day to complete test. When selling batteries make sure you sell the proper size. Batteries sold for replacements should

(Continued on page 76)

Locating a small, almost obscure crack in a rotor such as this can be an exhausting problem.



Sandpaper is pulled between brushes and the armature, forming a proper seat for the brushes.





Weary champion, Jim Rathmann of Miami, Fla., holds up a hand after winning the 500-mile Monza Road Race in Italy, June 29. Jim's 166.788 mile an hour in a Zink Leader Card Special established a new world racing record. This was the first Monza race for Rathmann. Old world record of 162 miles an hour was set by a German in a Mercedes 20 years ago.

HUMAN EVENTS



No fuss, no bother for these campers when they tried out this "experimental push button camper" which transformed a Ford station wagon into a four-bed motel on wheels. By pushing buttons driver can lower a boat, erect a tent atop roof, locate a kitchen unit on tailgate and extend a canopy to shade the cook. What a life!

This 8-foot, 6-inch elephant, a former circus performer, takes time out from his work to quench his mammoth thirst at a filling station. His trainer uses a radiator can as water bucket for the thirsty animal.



Pert and pretty Kathy Darlyn of Cypress Gardens, Fla., gives her impression of what a modern Maid Marion might be like when she goes hunting in legendary Robin Hood's Sherwood Forest.



Paul O'Shea, national sports car driving champion for 1955, 1956 and 1957, driving a Mercedes-Benz-SL Roadster is roped expertly by Saundra Joan Meek, queen of Las Vegas' "Helldorado" rodeo. O'Shea now is sports car director for Studebaker-Packard. S-P delivered more than \$1 million of Mercedes-Benz cars in Las Vegas.



MOTOR AGE Body Shop Story of the Month

Plastic Solder



1. Hydraulic jack is used to pull out depressed body metal of dented left quarter panel of a '57 Chevy.



2. Dents are hammered out with a shrink hammer while metal dolly is placed against underside of fender.



3. Coarse-grit sanding disk removes old paint and roughens surface of metal before applying solder.



4. Areas which were stretched upon impact are heated with torch and shrunk with dolly & hammer.



5. Equal parts of resin and catalyst are mixed with putty knife. Just enough is mixed for immediate use.

New plastic solder saves

By William M. Montgomery, Associate Editor

speeds METAL SURFACE REPAIRS

time and money for customers and boosts your shop's income

BODY shopmen are constantly on the look-out for new time and labor saving methods for doing body repair work. One new development is a plastic solder, introduced by the Chevrolet Division of GM. This solder is used as a replacement material for tinning and leading of metal surfaces. It can be used on the repair of

fenders, bodies, tops, mufflers and gas tanks.

The plastic solder comes in kits which contain a supply of resin with curing agent or hardener. The application procedure is simplified so that little training is required.

Solder can be spread at room temperature on the side of a body or fender without loss

(Continued on page 102)



6. Body shop repairman shown above, applies plastic solder swiftly and easily with a rubber squeegee.

7. Use of torch will cure plastic solder in a few minutes. Curing with infra-red lamps takes 30 min.



8. Plastic solder is not limited to metal surfaces. It is being applied on plastic body of a Corvette.

9. Smooth sanding of cured plastic solder and re-painting make repaired areas look as good as new.



How VOLUME service department solved . . .

Customer Relations Puzzle



1. As customer orders car, cashier writes repair number by stylus on transceiver.



2. Same number is re-written at the drivers' station.



3. Having torn off repair number, driver picks up car from lot and makes delivery.

By Roy Ahrig, Asst. General Manager—Con Frazier Buick

OUR service department handles a large volume of cars. Up to 90 cars a day at times. The service staff includes from 45 to 52 mechanics and body men and our dealership is Kansas City's oldest and largest Buick dealer.

Naturally we are deeply interested in customer relations. And because so many of our customers—who had their cars in for service—were coming to pick them up in the evening, there was congestion in car handling.

We have a five station intercom. Sometimes called a "squawk box" system. And

of course we used it to tell the drivers which cars to bring to the cashier's office. Unfortunately, the busier we were the less satisfactory the squawk box was. The shop is noisy, of course, and the drivers sometimes misunderstood. Picked up the wrong car. Or, if several cars were ordered at the same time, the drivers would often pick up the closest cars to deliver first. This meant that one customer might see several others get served before him, even though he had been waiting the longest.

In addition, the squawk box system was
(Continued on page 101)

How MOTOR AGE CAME to My RESCUE

NEVER an issue of MOTOR AGE goes by from which we don't manage to extract some worthwhile idea. It is often said that a good mechanic doesn't necessarily imply he will be a good businessman, and when I opened my shop, I had no experience in being on my own.

Now older people shake their heads and avow that "there's no substitute for experience." They are so wrong!

There is a substitute for experience and that is study and learning, through the pages of the magazines devoted to the automotive industry.

Nowhere did I find a better opportunity for learning how to conduct my fledgling shop than through the columns of your magazine, and it should be considered invaluable to every shop operator.

I think all the money you spend making up such a magazine, and all the helpful hints and suggestions, are a source of learning that no serviceman could ever attain through his own experience, without spending vast sums of money and learning the hard way.

Perhaps I'm capable of meeting every challenge myself, but how can any serviceman have the time to think up all the good ideas presented in your publication? Even the advertisements—I've written for information on many items found in your advertising pages, and found time savers and helpful hints. And everything that I thus find makes my business more efficient and increases my profits.

With those who say: "What you don't know can't hurt you," I disagree most emphatically.

What you don't know to operate your business, CAN hurt you in many dollars of profit you may be missing because you don't know of some method of improving your efficiency, making your place more attractive, and using merchandising ideas which you learned about while reading the informative and instructive, modern-as-the-sputnik MOTOR AGE!

Harry J. Miller, Owner
H. J. Miller Auto Repairs
Sarasota, Florida

(Mr. Miller has won a twenty-five dollar U. S. Savings Bond for his letter. He is the third winner in this year's "How MOTOR AGE Came to My Rescue" contest. Rules of contest appear on page 27.)



MECHANICS WANTED!

MECHANICS TRAINED!

Spring Garden Institute turns out 100 mechanics annually as its contribution towards reducing the mechanic shortage

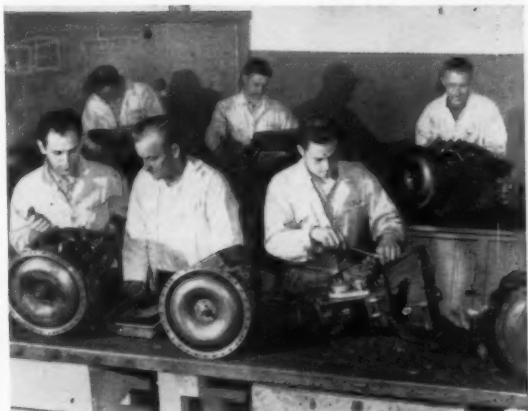


A student (above) begins a brake job under the critical eye of Joseph Kormanski, a former Spring Garden instructor who helped establish a similar school in Turkey.

At the left, students learn the details of carburetors. Cupcake tins on table hold many small parts that are easily mislaid by a do-it-yourself mechanic.



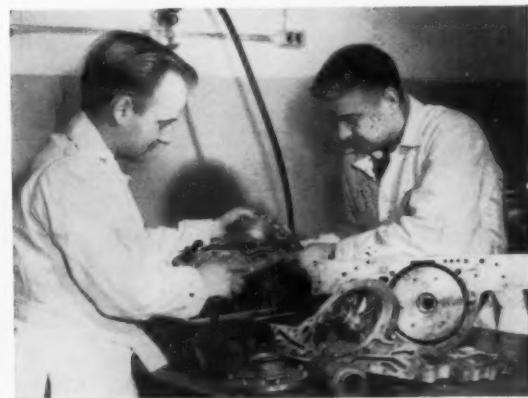
Students watch intently as instructor David Mahon makes point about a Buick differential.



In automatic transmission class, each student has own transmission to tear down and rebuild.



Faculty member J. Romanchick (right) checks car with Institute graduate Alex Di Natale.



Student Wm. Friday (right) checks automatic transmission with instructor Art Stephano.

FROM 10,000 to 40,000 mechanics, trained in all makes, are needed by automobile dealers and service shops yearly. Where they can be found is probably the number-one headache of the automotive sales and service field.

In the eastern Pennsylvania and southern New Jersey area one unique source of supply is the Automotive Training Center of the Spring Garden Institute in Philadelphia.

Sprawled over four acres in busy, industrial, north Philadelphia, this annex of the 107-year-old technical institute turns out about 100 mechanics a year. It is an independent non-profit school. Support comes through endowments, contributions and tuitions.

"Our placement service has a regular clientele of franchised dealers and service and repair shops," says Randolph G. Helf-

frich, director administrator of the Center. "Many of these graduates are already working in the field while attending school."

Helfrich and Rear Admiral Logan Ramsey, U.S.N. (Ret.), executive vice president of the Institute, both realize that 100 trained men yearly is not an insignificant assist to area automobile men. They are working on a program aimed at increasing the enrollment in the Center. They plan to do this by stimulating the interest and cooperation of automobile men throughout eastern Pennsylvania, southern New Jersey and upper Delaware.

Already Working in Service Shops

Most of the students either work in regular service shops, garages, or have their own outside work in the automotive field, while
(Continued on next page)

Mechanics Wanted!

Mechanics Trained!

...continued from preceding page



Body Shop instruction: Students straighten out dents, repaint, weld, and similar related work.



After working on generators, students need to check them out under instructor's supervision.

In the electrical shop course students work on generators. They must repair units themselves.



taking their training at the Automotive Training Center.

G.I. approved for many years, the Automotive Center has 189 veterans enrolled in its day or night courses.

Helffrich, an Ursinus College graduate with long experience in business administration, points out that the basic course is one year. The advanced course takes two years. The night students, since they have only two nights a week at school, require four years to complete the advanced training.

In the basic course the men learn the fundamentals of maintenance and repair. The automatic transmission and other more technical courses are included in the two-year course.

All of the faculty of 16 men have college specialized training in vocational teaching. Also all have varied experience in automobile shopwork.

A measure of the high regard in which the Center is held is its choice by the U. S. Government to furnish 10 of the Institute's faculty for a special State Department automotive training job in Turkey. These men are training a group of Turks so that they can set up a similar school in Turkey to teach automotive maintenance and repair.

Many of the students do their own modification of standard models while studying in the body and fender and painting shops at school. Some of their completed cars look like a combination of the latest in the Continental and the sleekest of foreign sports cars.

Dynamometer reading shown below is example of learning to use latest tune-up equipment.





Know the law

Over the years what have the courts said about the automobile's "coming of age"?

Note: "Know the Law" was compiled and written for MOTOR AGE by Howard Newcomb Morse, Counsellor at Law. Mr. Morse is a member of the Bar of the United States Supreme Court.

THE earliest observation on the motor car by a court was made in 1906. By the Supreme Court of Indiana in the case of McIntyre vs. Orner. The Court commented: "There is nothing dangerous in the use of an automobile when managed by an intelligent and prudent driver." The following year the Court of Appeals of Georgia in Lewis vs. Amorous noted: "It is not the ferocity of automobiles that is to be feared, but the ferocity of those who drive them."

How would the law cope with the "horseless carriage?" In 1907 the Supreme Judicial Court of Maine in Towle vs. Morse answered: "With respect to the methods of travel and transportation on the highway, as in all other spheres of action, the law seeks to adapt itself to the new conditions arising from the progress of invention and discovery."

However, that same year according to the Supreme Court of Iowa in House vs. Cramer, the law would simply have to *apply* existing legal principles to the new conditions rather than to *adapt* itself to the new conditions. The Court pointed out: ". . . though comparatively new in use, there is nothing novel in the principles of law to be applied with respect to travel in them on the highways."

The advent of the automobile met with favor by some courts. In 1908 the Appellate Court of Indiana in Brinkman vs. Pacholke

declared: ". . . automobiles or motor cars . . . furnish a convenient and useful mode of travel and transportation." In 1923 in Reynolds vs. Knowles the highest court of the state where most automobiles were (and are) made paid tribute to the product of its newest great industry. The Supreme Court of Michigan said: "It is doubtful if any method of travel is as safe as the automobile."

Other courts, however, took a dim view of the automobile. In 1914 the Supreme Court of Arkansas in Butler vs. Cabe made up its mind that automobiles are "vehicles of high power and great speed that make fearsome noises." In 1917 the Supreme Court of Missouri in Frankel vs. Hudson characterized the automobile as a "dangerous agency." And, in 1920 the Supreme Court of Florida in Southern Cotton Oil Company vs. Anderson described the automobile as "an instrumentality that is peculiarly dangerous in its operation."

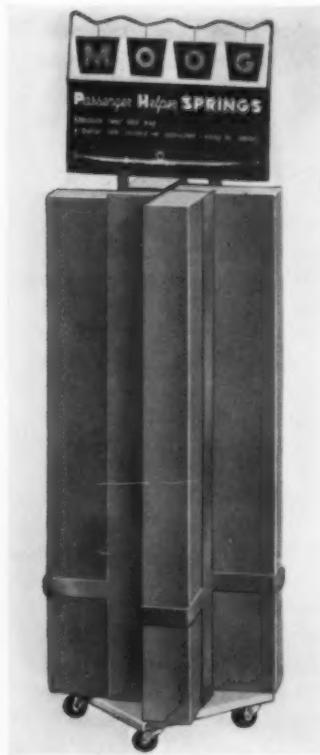
When did the automobile begin to come of age? In 1912 the Supreme Court of Nebraska in Tyler vs. Hoover announced: "The automobile . . . has come to stay." In 1915 the Supreme Court of Alabama in Reaves vs. Maybank concluded: "The automobile, a type of motor vehicle, is now a generally recognized means of conveyance of persons and things over the thoroughfares of this state." In 1922 the Supreme Court of Wisconsin in Henderson vs. O'Leary observed: "The ownership of an automobile has become quite common."

It can be stated conservatively that the
(Continued on page 93)



NEW PRODUCTS

SHOW WINDOW



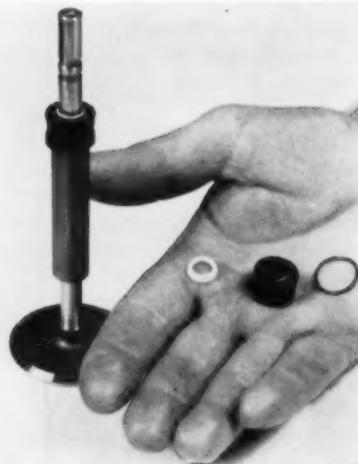
320. Helper Springs

Moog Industries, Inc: An assortment of rear helper-springs is available in a useful display rack. Entitled the PH-4, it consists of four sets of overloads for both passenger cars and station wagons. According to the manufacturer, the helper-springs

eliminate annoying rear-end sag. Another claim describes ease of installation. Besides the display rack, a window banner and supply of envelope enclosures are included.

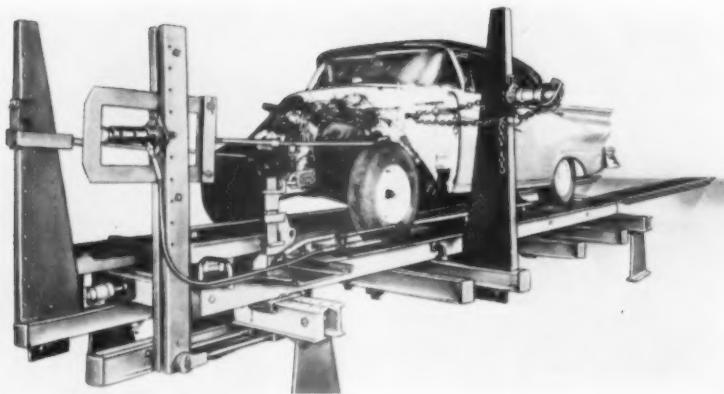
321. Prevents Oil Loss

▲ Perfect Circle Corp: Offers a seal that reportedly prevents oil leakage through valve guides of overhead valve engines. Device consists of a teflon seal encased in a Buna-N synthetic rubber jacket holding a retainer ring. Troublesome oil leakage is prevented by the seal formed between the valve stem and guide. The seal has spent two years in development.



322. Floor Machines

Multi-Clean Products, Inc: Graceful, swept-back styling is a characteristic of the recent line of floor and scrubbing machines. Mechanical features include dual controls, large wheels, bumpers that encircle top and bottom, and a recessed hand grip in front; also a recessed twist lock connector for cable. An electrical switch and twin capacitors reportedly enable the heavy duty motor to start and reach top speed almost instantly. The gear unit is factory sealed. The floor machines are offered with brush spreads of 14, 16, 19 and 22-in. To convert them to scrubbing machines, a 3½ gallon tank and control can be added.



323. Carburetor Tools

▼ Kent-Moore Organization, Inc: For quick, accurate factory-recommended adjustments, a special carburetor gauge set is available. The set, one of two, covers General Motors, American Motors, and Studebaker-Packard Cars. A separate set is available for Rochester, Stromberg, and Carter carburetors. Each set is strung on a bead chain in the order of recommended use. Each, too, follows the service manuals.

324. Body-Frame Repair

▲ Bear Mfg. Company: A dual body and frame straightening machine was recently announced. Resembling a rack, it reportedly enables repair shops to correct frame and body damage simultaneously. This is accomplished with two "Power Towers" and special attachments. The rack, whose runways are adjustable for both foreign and American models, is 20-ft. long, 112-in. wide. Towers permit pulling at various levels.

325. Fuel-Filter Kit

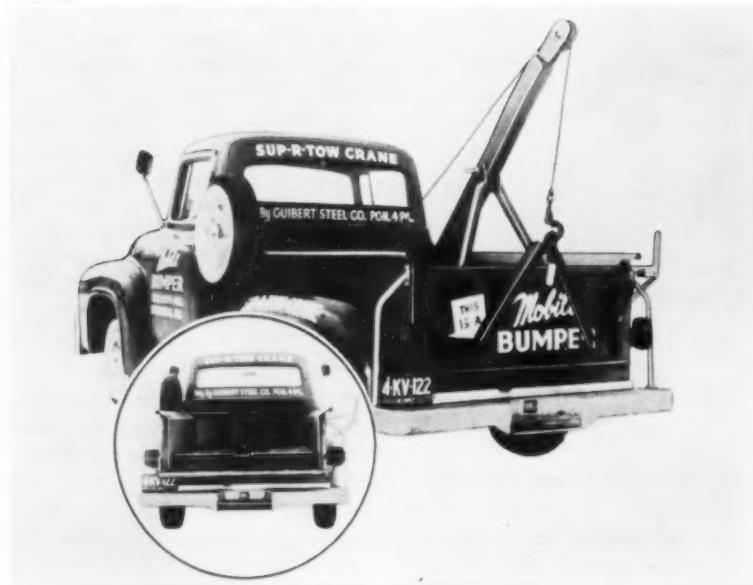
Purolator Products, Inc: A gasoline fuel-filter kit designed for trouble-free operation has been marketed. The company claims the filter will trap dirt particles as small as 2.5 microns. Because of a large filtering area, the filter element is said to require changing after 10,000 miles. Kit is offered for both late model cars and trucks.

326. Versatile Tool

▼ Johnson Specialty Mfg. Company: A handy tool for many automobile jobs is available. Name: "Pogo-Prop." Resembling a pole, it compresses to 42-in., extends to 59-in. It is reportedly a handy support for welding, body work, other time-saving uses. Both ends are rubber-tipped. Pogo-Prop is suitable as a clothes pole, spanning the car's interior; also as a hood prop. According to the manufacturer, it will depress the brake pedal while bleeding brake lines. In emergencies it can be employed as a toe-in gauge.

(Continued on page 60)





327. Pick-Up to Tow

▲ **Guibert Steel Company:** A fold-away tow crane is available to convert pick-up trucks into tow trucks. According to the manufacturer, the crane is capable of converting nearly any $\frac{1}{2}$, $\frac{3}{4}$, or 1-ton pick-up model. Entitled "Sup-R Tow," it folds flat into the bed of the truck. One man can reportedly raise, operate and fold it. Crane has an electric winch capable of two-ton lift, push-button control.

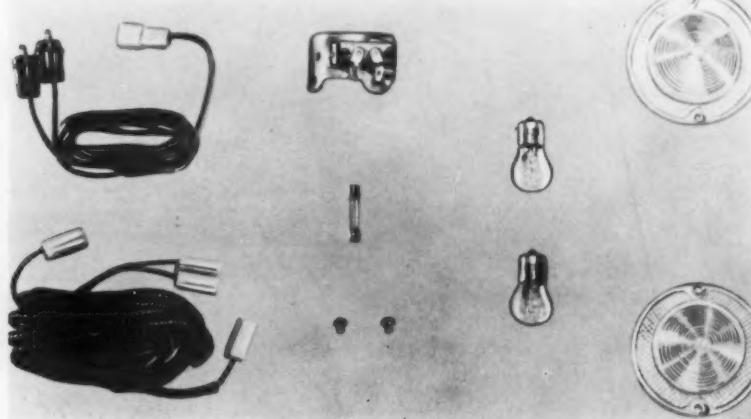
328. Conversion Kits

▼ **Auto Lamp Mfg. Company:** Four Pathfinder kits are offered to convert "inboard" lights into back-up lights on 1958 Chevrolet passenger cars, station wagons, and sedan deliveries. Clear lenses replace original red inboard lenses. According to the manufacturer, these provide safer back-up driving through illumination over the rear bumper. Each kit contains two clear lenses, two bulbs, and wiring.



329. Small Car Battery

The Electric Auto Lite Company: Production of a wet or dry-charged battery for both small and foreign cars has been announced. Described as nearly 7-in. square, it retains features of company's original and replacement models. It reportedly exceeds requirements of Volkswagen (USA models 1955-58), Jaguars and XK-120 (1950-54) and XK-140 (Fixed Head Coupe 1955-57). Also British-built MG (MGA 1956-57), and German-made Opal (1957-58). Available throughout U.S., Canada and foreign countries.



330. Fuse Holder

Standard Motor Products, Inc.: Released to the field a fuse holder entitled FM-1. It is designed for all 6 and 12 volt systems. The company claims it will hold every automotive fuse of $\frac{1}{4}$ -in. diameter. Another claim describes extra protection for vital electrical accessories. The fuse holder is easily installed, requires no soldering. It is said to simplify inspection, replacement of fuses.

(Continued on page 62)

You Are Qualified to be a Member Of The Automotive Service League

This is a new and unusual organization open to all automotive service shops which have been qualified by Motor Age. If you haven't done so before, detach and return the postage free postcard below.

[The second and lower postcard is for more new product information.]



To MOTOR AGE

Please send me our membership plaque in the AUTOMOTIVE SERVICE LEAGUE.

We operate a
(check one)

Car Dealership
 Repair Shop

Service Station
 Specialty Shop

There are full time mechanics at our location.

Your Company

Your Name Your Title

Address

(Street & No.)

(City)

(Zone)

(State)

Frank P. Tighe, EDITOR MOTOR AGE
P.O. Box 102, Village Station, N. Y. 14, N. Y.

8/58

Please send me further information on the New Products, the code numbers of which I have circled below. (Be sure to circle the code number.)

320	321	322	323	324	325	326	327	328	329
330	331	332	333	334	335	336	337	338	339
340	341	342	343	344	345	346	347	348	349
350	351	352	353	354	355	356	357	358	359
360	361	362	363	364	365	366	367	368	369
370	371	372	373	374	375	376	377	378	379
380	381	382	383	384	385	386	387	388	389
390	391	392	393	394	395	396	397	398	399

[Postcard valid for 90 days only.]

Your Name Your Title

Your Company

Your Business: Wholesaler Repair Shop Car Dealer

Address
(Street & No.) (City) (Zone) (State)

FOR
LEAGUE
MEMBER-
SHIP

Please Note!

When filling out cards—
be sure to sign your
Name and Address!

FOR
NEW
PRODUCTS

New Literature

331. Wheel Service

Bear Mfg. Company: A 20-page bulletin describing wheel service has been published. Entitled C-358, it contains illustrated descriptions of the company's new Telaliner, 12 other alinement and frame straightening services, low cost gauge sets for small shops, Cadillac adaptors and wheel weights, and special gauges and tools. According to the producer, the bulletin describes how servicemen can economically purchase equipment.

332. Brake Booklet

World Bestos: The latest issue of "Stopping Power News," covering brakes and linings, is available for fleet operators and servicemen. The 8-page booklet, in an illustrated story, explains friction, causes, and coefficient. Another section describes why brake lining demands careful selection of raw materials, accurate compounding, thorough curling.

333. Auto Glass Folder

Dutch Brand Div., Johns-Manville: Offers a 4-page

folder entitled: "Save Time and Money in Auto Glass Installations." Aimed at man-hour economy, it describes how to set glass quickly with hand pressure. Displayed are two channel packing materials which, reportedly, fit snugly around curves and can be trimmed to a neat edge. The first, "Tite-Pak," is used to set small ventilator glass in curved frames. "Tuff-Pak" is employed where extra strength is required.

334. Advertising Kit

Automotive Advertisers Council: Produced a 20-page brochure aimed at wholesalers entitled: "Advertising First-Aid Kit and Plan Book." It reportedly explains how to derive the most from the advertising dollar. The booklet covers direct-mail, radio, newspaper, and display advertising. For the jobber an itemized advertising budget is included. Expenditures are in proportion to population, and varying costs of both newspaper and radio coverage. Actual copy is included as a guide.

BUSINESS REPLY CARD

NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY

MOTOR AGE

56th & Chestnut Streets

Philadelphia 39, Penna.

Att.: E. W. Hovner

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Readers Service Dept.

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335. Key Blank Catalog

Taylor Lock Company: An illustrated catalog of the company's key blanks is available. A large section is devoted to foreign car blanks. Life-size drawings of each key are displayed, also cross-section views of the keyways. Shown are 104 blanks for foreign cars, motorcycles and scooters. Foreign car blanks identify series and manufacturer. Included is a description of the company's new foreign car F2 assortment. Blanks cover four each of 103 different blanks to fit 81 European vehicles. The assortment pro-

(Continued on page 100)

Management Clinic



Enforce Safety in Your Shop

SAFETY is something never to be taken for granted. Accidents have a way of cropping up when least expected. It's good shop practice to follow safety rules:

When an accident does happen, the news spreads quickly. Not highly favorable news either in most cases. Besides this detrimental side, if a customer or his car is involved, you have the added worry of a possible lawsuit.

Accidents can well result in lost time for one or more of your personnel. Besides the pain and suffering from the injury.

Take Care with Gasoline

One of the trouble spots of any station is of course the gasoline pumps. There are two reasons: First, the liquids are obviously dangerous. Second, because handling, using and selling them is routine. It is just human nature to occasionally take chances. And for this reason the careful operator is careful to instruct all help that caution in this regard be never thrown to the winds, because one single mishap with gasoline is all that is needed to blow the shop sky high.

Smoking should never be tolerated near the gasoline pumps. This should include customers. If you mention the safety factor when you suggest this to them, they'll be glad to cooperate.

Gasoline (for the most obvious reasons in the world) should never be used for cleaning

purposes inside the shop area. This rule should hold in regard to kerosene as well as any other type of inflammable liquid. True, some station operators shrug that the use of kerosene is "safe enough." But this isn't true. Ask any operator who has suffered severe business damages because of fires which started through the use of kerosene for cleaning. There really is no excuse for this practice. There are so many safe and efficient commercial cleaning compounds on the market these days that are manufactured especially for thorough clean-ups.

In order to prevent others from stumbling and falling, all small equipment and tools should be kept off the floor. They should never be left carelessly in the driveway. Even tire service can be quite dangerous if safe work habits aren't observed at all times:

Jacks should be set so that the car is unable to slip off. The hydraulic jack handle should be kept in a high position, just to make sure that it won't trip someone. The rim lug wrench and tire irons should be used with care, in order to have full control at all times.

Tires should never be lifted from the wheel in a stiff legged position. This puts the back muscles into play. They're easily strained. Instead, the knees should be bent so that the stronger leg muscles can do the work.

(Continued on page 103)



SHOP APPEAL

Wins Feminine Fancy . . .

BUILDS

Volume and Profit

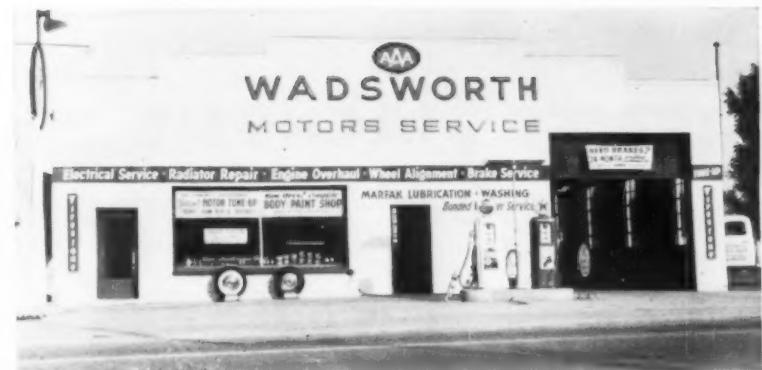
Attracting women customers with spotless shop housekeeping

INVESTING \$50,000 in a specific attempt to attract women customers has paid dividends for S. K. and R. K. Shredd, operators of the Wadsworth Garage, in Wheatridge, Col. To the tune of a documented 35 per cent increase in volume.

The father-and-son partners took over a well built but sorely run-down garage in this northwest suburb of Denver 2½ years ago. Prior to that they had operated a small

garage on Denver's east side, which was physically impossible to be enlarged due to peculiar building circumstances. The Wadsworth garage was an excellent building, had a fine growth potential. There is space for a forthcoming shopping center across the street, and the suburb has increased its population by 500 per cent in the last 10 years. Consequently, when the opportunity came along to take over the 150x90 foot

At right: front view of Wadsworth Motors Service. Place is always kept spanking neat and clean.



Above is neat pegboard display of accessories. At left: a woman customer looks over her index card that records past work on her car.

is rule of this volume shop

building, the Shredds didn't hesitate.

Before signing the papers, however, the partners took an unusual step; one which most garage operators had often wished that they had carried out. This was to get out and "pre-survey the market." For an exhaustive two week period. Both of the Shredds rang doorbells, talked to motorists in service stations, and to the "man on the street." In all interviews the intent was the same—to

determine what the actual market was in terms of frequency of repairs, the age of the average automobile in the area, the driving habits and load typical to the usual family, etc.

More than 200 "samples" were taken in this effort, all of which brought forth a rather impressive conclusion. This was that in remodeling the Wadsworth garage management would have to "appeal to the distaff side."

"The results of the survey were clear-cut," R. K. Shredd said. "It proved that in 18 out of 20 patrons, families were headed by a husband who worked in the downtown Denver area, some 15 miles away, and he customarily left matters as getting the family automobile serviced up to his wife. Women, too, were the most (Continued on page 70)

CORRECT DIAGNOSIS of Customers' Problems

BUILDS

Customer Reports

Low unsteady charging rate

Mechanic
Knows:

- a. Slipping fan belt
- b. Defective ammeter
- c. Improperly seating brushes
- d. Weak brush spring tension
- e. Poor bond between brush and pigtails
- f. Out of round commutator
- g. Resistance in charging circuit

- h. High mica between commutator bars
- i. Open armature windings
- j. High resistance at battery-terminal posts
- k. Loose connections
- l. Defective regulator

Battery run down

Mechanic
Knows:

- a. Excessive use of electrical units
- b. Insufficient driving
- c. Low regulator setting
- d. Loose or defective fan belt

- e. Corroded battery terminals
- f. Short in charging circuit
- g. Stuck cut out in regulator
- h. Defective stop light switch

Binding or poor recovery (Power steering)

Mechanic
Knows:

- a. Ball stud rubbing edge of sleeve slot
- b. Roll pin missing
- c. Idler arm bushings worn
- d. Control valve spool binding in housing

- e. Interference between sector shaft arm dust shield at ball stud
- f. Control valve travel regulator stop drawn up too tightly
- g. Control valve sleeve damaged
- h. Socket tube damaged

Hard steering (Power steering)

Mechanic
Knows:

- a. Defective pump
- b. Damaged control valve
- c. Damaged power cylinder
- d. Interference between socket tube and valve sleeve

- e. Burrs on spool lands
- f. Control valve ball stud binding in seats

Excessive free play (Power steering)

Mechanic
Knows:

- a. Excessive clearance between steering arm ball stud and ball stud seats

- b. Ball stud loose in seats
- c. Spring adjusting nut loose

PRESTIGE and Increases Shop's SALES and SERVICES

Mechanics of all ages will find this a helpful guide in deciding the right steps to take after trouble is reported



Customer Reports

Noise (Power steering)

Mechanic Knows: a. Pump belt too tight •b. Pump belt too loose

Steering chatter (Power steering)

Mechanic Knows: •a. Loose pump belt
b. Looseness in idler arm rod connection
•c. Worn mounting bushings
d. Improper mounting nut torque
e. Damaged idler arm bushings
f. Worn idler arm bushings
g. Loose power cylinder piston rod insulators

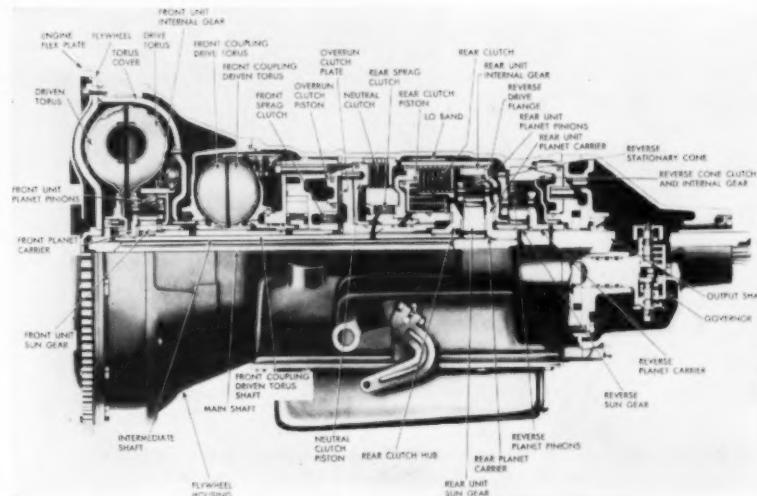
Rattles (Power steering)

Mechanic Knows: •a. Control valve spool centering spring adjustment too loose
b. Looseness between control valve ball stud and ball stud seats
c. Interference between spindle connecting rod and lubrication fitting

Loss of power assist (Power steering)

Mechanic Knows: •a. Damaged or broken hoses
b. Broken or loose pump belt
c. Faulty pump
d. Faulty control valve
e. Faulty power cylinder
•f. Maladjustment of control valve spool centering spring
g. Control valve check valve does not operate freely

• represents most common solutions



Late Model Cadillac Hydramatic

1956 Cadillac Is Not Shifting Properly

We are experiencing difficulty with 1956 Cadillac transmissions. We have taken one out five times, replaced clutches, adjusted linkage, changed fluid, yet transmission won't shift properly. For some reason which we aren't able to find, transmission slips when driving in third gear. This causes motor to race. It is impossible to take off at normal speed from a stand and have transmission shift without slippage or motor racing.

James Quarterman
Los Angeles 18, Calif.

SINCE you had it apart so many times, I believe you made sure the front torous check valve and the front relief valve were operating freely. Either one of these valves could cause the trouble if they were sticking. Also a pressure check should be made on the throttle valve. Connect an oil pressure gage to the T.V. pressure take-off plug just behind the oil cooler fitting on the right side of the transmission. With engine idling at operating temperature, disconnect throttle valve control rod at the lever on the left of transmission. Move the lever as

far as it will go. While holding the lever in this position, place the special gage available against the side of the gage slot. Bend lever as required to align the ball stud with the gage. Hold in place and move lever so ball stud touches front end of slot. Pressure should be 20-22 lbs. If pressure is not correct, make a note on how far off it is. Stop the engine, drain the transmission oil, remove the oil pan and adjust the position of the throttle valve. Stop adjusting screw on the control valve to correct the pressure. Moving the screw forward about .030 in. will increase the T.V. pressure about 5 lbs. Moving it rearward .030 in. will lower the pressure about 5 lbs. Replace the oil pan and the fluid. Recheck the pressure when the lever is against its stop. It should be 20-22 lbs. Readjust the throttle valve linkage.

Nash Rambler Leaks Transmission Oil

I have a 1956 Nash V-8 Rambler with overdrive that has a transmission problem. The gear oil comes out of the transmission breather. I completely disassembled the unit for inspection. The cover gasket has the vent in the rear and the cover vent hole is in front. I brazed a

for troubleshooting



tube to the cover and extended it upward toward the engine so the vent level was about 5 inches higher than the transmission cover. The gear oil still comes out in a small quantity and makes a spot on the owner's garage floor.

Albert Jensen
Jensen's Richfield Service
Turner, Oregon

I WOULD suggest changing the transmission oil and then install some steel wool in the vent hole or stuff it in the tubing. This oil probably gets hot and turns into foam.

Ford Wears Fuel Pump Push Rod Very Rapidly

I have a 1951 Ford V-8 which has been giving me a lot of fuel

pump push rod trouble. I installed a new one about 5,000 miles ago. Now it needs another. The push rod is worn off concave on the camshaft end. What can I do to stop this rapid wear?

Carl R. Long
Rayesville Road
Ashland, Ohio

THIS condition is probably caused by a rough camshaft. The camshaft is wearing the push rod. A permanent cure would be to replace the camshaft or you could also install an electric pump. This type pump will work well and be less expensive to the customer.

Needs Help With Generator That Won't Charge

I need some advice concerning a 12-volt generator on a model T. D. 14 Allis Chalmer caterpillar. I overhauled this generator and tested armature and fields. I put new bearing and brushes in also. Everything checks out OK. Put this generator on machine and it won't charge. Since then, the generator has been checked at four other shops and run on test stands. They all said that it checks out OK. When I put it on it still did not charge, although there seemed to be plenty of

current on the battery wire. The last time the generator was checked, we checked the voltage regulator and set it to correct specification. After all this, the generator still does not work.

Lois Ibsen
South Garage
Upland, Neb.

IF the generator and regulator tests OK on the bench, then you have an open circuit between the generator and regulator or a bad ammeter. You can quickly check the open circuit by running jumper wires from the generator to regulator. If this doesn't work try another ammeter. I would also run a separate ground wire from the generator to the regulator. This permanent ground always helps.



too, were found to be the most frequent users of the family automobile. The commuting husband took the bus or was part of a car pool to make the long haul down town. Most damage to the family automobiles was caused by 'the woman in the case' as well. When we ascertained these facts, we also found that the women we interviewed were almost unanimously displeased with grubby, greasy surroundings which they had entered in the past. Actually hated to enter one, and were generally convinced that service and repair prices were some sort of hold-up."

It was obvious that in order to capture the sort of repair volume which heretofore had gone into nearby Denver or other communities, that it was up to the Shredds to "look good to the feminine customer."

Consequently, in spending some \$50,000 on rejuvenating the garage, the Shredds looked at each project from the feminine standpoint. Thus a complete paint job and new signs for the front. Scrubbing down of all interior walls and the floor; installation of new windows, a tube exhaust system and complete wheel alignment and brake equipment. Department after department were slanted to women.

First, some 20x18 feet of space at the left front was made into a handsome combination display room and waiting room, lined with white pegboard. On the pegboard were displayed doll-up accessories, standard automobile accessories, specialty automotive products, set against a clean white background. The carpeted area contains a pair of comfortable lounge chairs for women, a coffee table on which women's magazines are always shown, and off to one side is a pleasant, comfortable ladies'

lounge. Completely tiled, equipped with the sort of facilities which women enjoy using, the lounge is well identified and can be depended upon to catch the eye of even the most casual visitor.

Going farther, similar white pegboard display panels were installed on the wall at a dozen points. Here were displayed the tools used in specific services, suggested replacement parts and accessories. All identified clearly enough that any woman visitor can get some understanding of their purpose.

"That was as far as we could go from the display standpoint," R. K. Shredd said. "From that point on we had to institute policies which we felt would be likewise more attractive to feminine customers."

One of these was a thoroughly weekly scrub down of the entire garage, daily clean-up of the lounge area, and, of course, a program of friendly, helpful pleasant greetings to every woman customer. In addition to wearing clean gray uniforms on the job, the Wadsworth's Garage four mechanics also make it a point to ask each woman customer whether she would like to watch the repairs carried out on her car.

"We had a double reason for doing so," the younger Shredd explained. "First, women today know a lot more than the average man gives them credit for about the mechanics of their automobiles. About 2 out of every 5 are pleased with the novelty of the suggestion, ask a lot of questions, and go out thoroughly satisfied that they have watched an automotive genius at work.

"The second reason, of course, is that the customer who is inclined to balk at paying \$4.50 per hour for repair work, gets an idea of the actual labor and

training which goes into the work plus the investment in tools and is far less likely to object. In combination, the invitation and a thorough explanation as we go along has made a lot of women customers believers where we are concerned."

With all of these elements in hand, the Wadsworth Garage owners felt that they had the "reception" original appearance, and the sort of background which would please the housewife entrusted with the job of getting the family car repaired. To back these up, the Shredds then went into the matter of bookkeeping.

"We feel that the bookkeeping means the difference between success and failure," the younger Shredd indicated. "And that in these days of intense competition unless we can come up with an accurate profit and loss statement by the tenth of every month, we are slated for disappointment.

"As a result, we have made it routine to make out a complete file card on every service operation. We used 5x8 ruled cards.

Keep Files One Year

"We maintain the files for one year on each job before dead filing it. We found that records of this sort make an excellent impression on the customers.

"Good records keeping, which is a full time job at the Wadsworth Garage, has an excellent effect on women customers, too," Shredd said. "We find that women like to look over records of past service on the car whenever they come in and once they have done so for the first time, they are likely to call for the card on every visit hereafter.

"It gives the car owner an opportunity to see in black and white when any car is living up to the manufacturer's promise. Whether repair expense is enough to warrant trading it in on a new car, and, of course, is helpful at income tax time or

(Continued on page 104)



Professional Race Drivers Bet Their Lives on Grey-Rock Brake Linings

Men like Speedy Thompson, Cotton Owens, Marvin Panch—who took the first three places in last year's famous "Southern 500" NASCAR* race—used Grey-Rock. They do not compromise on quality. On the speedway and on the highway Grey-Rock Brake Linings give an extra margin of safety.

Grey-Rock Balanced Brake Linings, including woven and molded, look different—are different. And when you P-L-S the Grey-Rock way you can see, show and sell the difference to car owners.

"GREY-ROCK'S P-L-S PLAN IS A SURE-FIRE WAY TO INCREASE BRAKE BUSINESS!"

—says a leading Western dealer

That's what dealers all across the country are saying about Grey-Rock's P-L-S Plan. Pull a wheel, Look at the brakes, Show the customer what's needed whenever a car comes in. Ask your jobber how Grey-Rock linings and the P-L-S Plan can greatly increase your brake service business and profits.

*National Association for Stock Car Auto Racing

Advertised regularly in **POST**

Only Grey-Rock makes

BALANCED BRAKSET LININGS

BALANCED BRAKSETS • TRUCKSETS • BRAKE BLOCKS • VEE-LOK® CLUTCH FACINGS
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RAYBESTOS-MANHATTAN, INC., Brake Linings • Brake Blocks • Clutch Facings • Mechanical Packings
Asbestos Textiles • Industrial Rubber • Sintered Metal Products • Engineered Plastics • Rubber Covered
Equipment • Abrasive and Diamond Wheels • Industrial Adhesives • Laundry Pads and Covers • Bowling Balls

Ask your jobber about a Grey-Rock Brake Service Clinic. It's the best way to keep up to date on how to handle brake problems.



be of an electrical size of at least the equal of the battery which was installed by the manufacturer.

Accessories Use Current

Frequently additional current assuming devices have been added to the car by the owner which may make a larger capacity battery desirable. A car equipped with sealbeam headlights, heater, radio, might draw 34 AMP's in a 6-volt system and 21 AMP's in a 12-volt system. The drain on the battery of a modern car may be very high when the engine is not running. High-capacity generators carry the electrical load when the engine is running. But too small a battery may be discharged so much by lights and radio when the car is parked that cold weather starting is seriously impaired. An electrically oversized battery is therefore highly desirable. It provides a factor of convenience and safety.

The larger battery will also have longer life and therefore will be worthwhile investment. Cars equipped with air conditioning definitely require larger batteries.

Checking the Charging Circuit

Start the engine and operate at a medium speed corresponding to about 30 mph. Lights and accessories should be turned off and battery electro-light should be at a temperature of 60 to 90 degrees Fahrenheit. Determine that your generator is charging by noting the dash-handmeter or the charge-indicator. A fully charged battery and a low-charging rate is in normal condition. Under these conditions a voltmeter connected across a three-cell battery will show 7.0-7.5 volts, and across a six-cell battery 14-15 volts. Without an appropriate voltmeter a rough check on the voltage regulator

under these conditions would be to note the charge rate at medium engine speed.

Turn the ignition on and step on the starter for about ten seconds. Then start the engine again and while it runs at a medium speed note the charging rate. This should be higher than before because battery voltage

is lower, having just packet the engine. After a little running to recharge, the voltage regulator should decrease the rate to about the first noted. If not the regulator is out of adjustment.

A fully charged battery and a high charge rate indicate regulating equipment is not reducing the charge rate properly. Under these conditions a voltmeter connected across a three-cell battery will show above 7.5 volts and across a six-cell battery above 15

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volts. This causes excessive wear on battery plates and shortens battery life. In addition, the high-voltage is injurious to the armature, ignition coil, distributor point and lamp bulbs. This condition should be corrected immediately.

With a discharged battery at normal temperature and a low or no-charge rate a voltmeter connected across a three-cell battery will show 6.1-7.0 volts

and across a six-cell battery will show 12.2-14 volts. With these conditions, check for loose or corroded connections, worn brushes, frayed or damaged wires.

If the trouble causing a low charging rate with a discharged battery is not readily disclosed, attach your instruments and make a thorough check on the regulator and set it according to factory specifications.

Conditions affecting ignition performance are important. If the ignition performance is unsatisfactory, the following conditions should be kept in mind as possible causes of defective ignition performance.

Increase the condenser capacity. Shorten the condenser leads. Separate the low and high tension coil distributor leads, moving leads closer to ground, engine block, panels and so forth. (Mount coils directly to ground if it is not so mounted.) With the build-up of materials on the negative point, pitting on the positive, the reverse of the above tends to be corrective.

Generator Maintenance

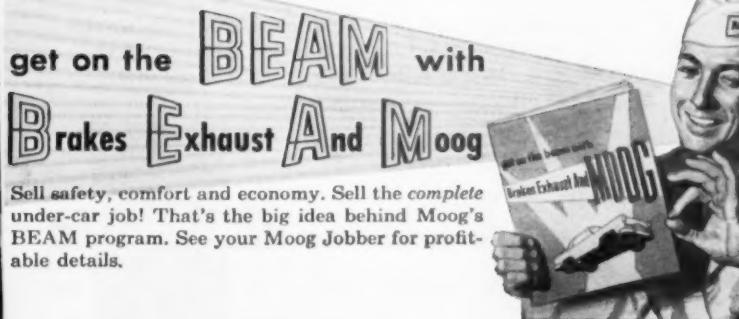
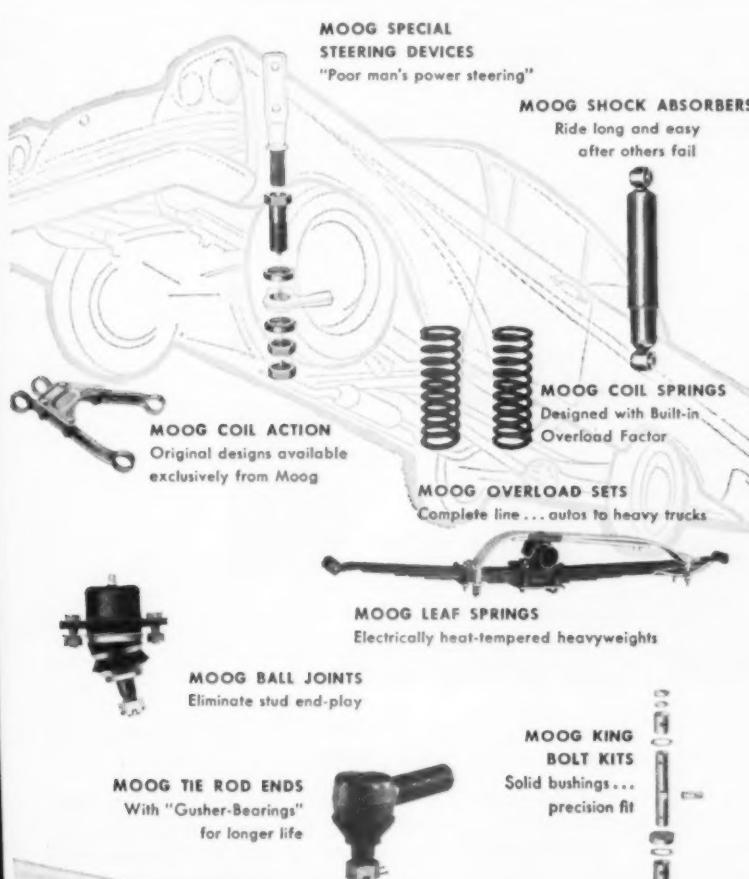
Generators should be removed every 20 to 30 thousand miles for thorough inspection and cleaning. The various parts should be taken out and carefully cleaned and examined. Wiring connections should be checked, and any loose or corroded joints should be made clean and tight. Brushes should be examined to see that they are seating well and that they do not stick in their holders.

The generator belt should be checked more frequently. The belt tension is important to belt and bearing life. It should never be loose enough to allow slippage but should not be so tight as to cause excessive side thrust on the generator bearing.

Belt should be kept free of oil and grease. Always replace worn belts with the size specified by the manufacturer.

The commutator should be kept clean and free of grease and dirt. Clean commutator with #00 sandpaper. Never use emery or carborundum cloth on commutator or brushes, as particles of these abrasives imbed themselves in the bars or the brushes. This sets up an abrasive action that greatly reduces the brush and commutator life. If commutator is worn rough or eccentric, the armature should

(Continued on page 88)



*In the
automotive
service business...*

THERE'S NO BUSINESS LIKE CHEVROLET BUSINESS !



BECAUSE... One out of every four cars and trucks on the road is a Chevrolet—more than any other make.

BECAUSE... You can make your Chevrolet dealer your one-stop source for the genuine Chevrolet parts you'll need to serve this market.

Nearly 16,000,000 Chevrolet cars and trucks on the road . . . a *big* service market!

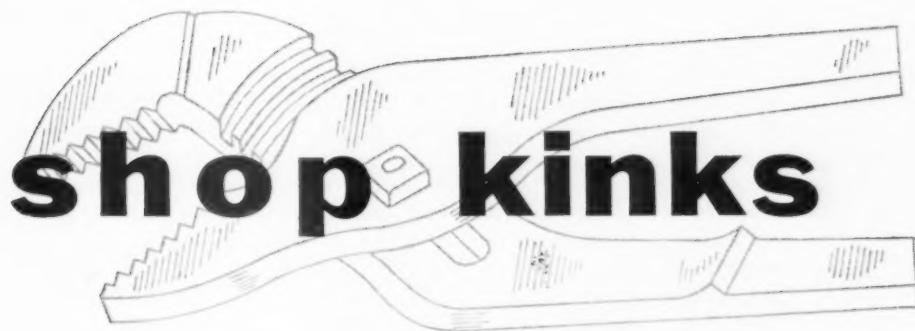
Dependable Chevrolet parts are built of the same high quality material and to the same rigid engineering specifications as the original parts. They're made for a Chevrolet—and made to work together.

Your Chevrolet dealer can offer you service aids that can help you give better and more profitable service to Chevrolet owners. . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

MAKE YOUR CHEVROLET DEALER YOUR PARTNER IN SERVICE . . .

HE IS READY, WILLING AND ABLE TO SERVE YOU!





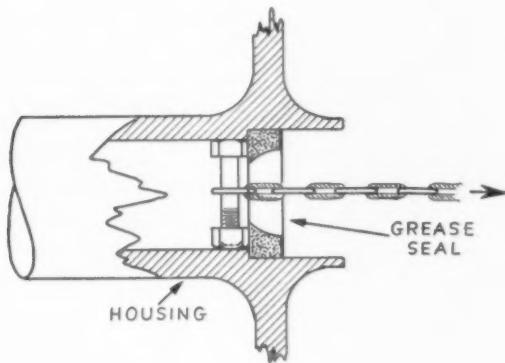
Time and work saving ideas on cars and trucks can pay off. Send Yours In Now!

\$25

FOR THE KINK
OF THE MONTH

Kink of the Month:

**Remove Grease Seals
With Home Made Puller**



Removing grease seals which are too small or too large for your puller is an easy task. That is if you have a length of chain and the usual assortment of nuts and bolts around the shop. Select a nut and bolt which when "run-out" will expand against the inner diameter of the housing. Remove the bolt from the housing after checking the fit and attach the chain and nut. Then slip the assembly back in place behind the seal. A pry bar usually gives enough leverage to remove the seal. Stubborn cases may require that you rig a bumper jack to the free end of the chain to obtain additional power. *Jim Murphy, 1505 So. Third St., Corvallis, Ore.*

\$7.50

PAID FOR
EACH KINK

**Short Cut To Free
Shims On Fords**

I have discovered a short cut which eliminates wasted time in prying the upper control arm shaft away from the bracket to free the shims while alining late model Ford front ends. To free the rear shims after loosening the nuts, just turn the left wheel to the left with the weight on the tires and pick out or add shims with fingers. Turn left wheel to the right to loosen the front shims. On the right side a right turn frees the rear and a left turn frees the front. *Wally Gross, 1104 E. Tulare Ave., Visalia, Calif.*

**Tips On Removing
Car's Tail Pipe**

I read in a recent MA issue about spraying tail pipe joints with alcohol to help remove them. I would like to add my tip to this. First loosen rear hanger clamp. Next, loosen clamp *(Continued on page 80)*

Shop Kinks Continued from page 79

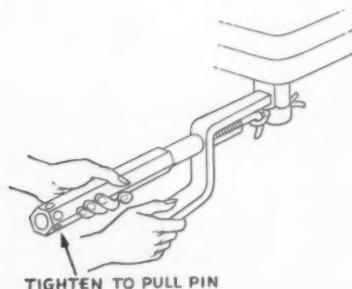
around tail pipe and muffler. Slide clamp back about 15 inches and tighten nuts on clamp around tail pipe. Now spray alcohol on joint and tap with hammer to loosen rust. Next, tap clamp with hammer and tail pipe will back off without the usual twisting and straining. After new muffler has been installed, place tail pipe in position and tap clamp again to push pipe back into desired position. Loosen clamp and slide up to joint and tighten all clamps and job is complete. *William D. Bobb, 1559 E. Luzerne St., Phila., Pa.*

Preventing Seal On Water Pump From Breaking

I am sending you a tip that I think will help out on Cadillacs and Packards and cars that have the same type of water pumps. After removing the water pump for any length of time, put the pump in water and leave until ready for use again. If the pump is left off more than about five hours, the seal will break and the pump will have to be replaced. *Arnold Russ, 113 W. Chestnut St., Anaheim, Calif.*

Easy Way To Make Powerful Cotter Puller

A simple yet powerful shop-



made cotter key extractor can easily be made. The tool consists

of three parts. The "hook," a flat sided screw; the drilled and tapered hexagon handle or nut and the nose piece handle of flat stock. This handy tool will pull large cotters easily. *Charles H. Willey, Route #7, Penacook, N. H.*

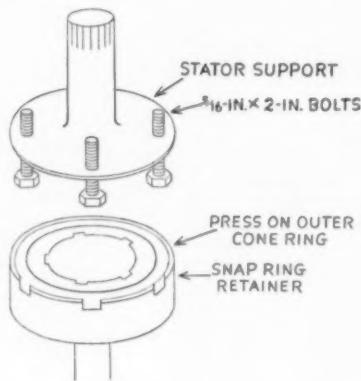
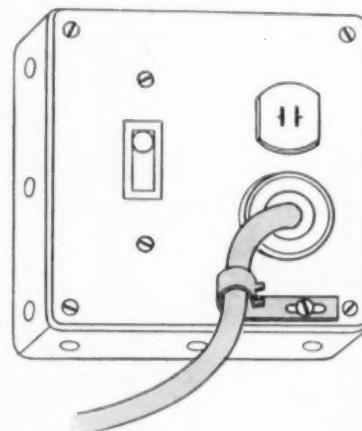
Tool Used To Disassemble Neutral Clutch Unit

It has been a difficult job to disassemble the neutral clutch unit of the 1957 Chevrolet turboglide transmission. This is so because of the piston return spring pressure on the outer cone ring not allowing easy removal of the retaining ring. I have made a tool from an old powerglide transmission front

do not need to drill holes for legs. *Lloyd Curl, Rapid Chevrolet Co., 4th & Main St., Rapid City, S. Dak.*

Tension Spring From Ford Makes Ideal Wire Clip

One of the most usable pieces of salvage from our shop is the



pump stator support. By using the existing holes in support you

tension spring from old Ford and GM point sets. They are the ideal size for wire and tubing clips, tool hangers, work order clips and hangers. These springs can be used to screw on all types of wall electrical outlets as a keeper for drop cord and power tool plugs that insist on coming loose in the middle of a job. To use just loop the wire through, it snaps in and out with ease. *Karl J. Pfeffer, Boulevard Atlantic Service, 286 Ohio River Boulevard, Emsworth, Pittsburgh 2, Pa.*

If you have an original idea for a special tool, a short cut on any job or any trick of value to others, write it down and if necessary make a rough sketch. Just make it clear. Send it to Motor Age. If your Kink is used it may bring you \$7.50 or \$25. All entries become the property of the Chilton Company. Because of the quantity of entries sent in, none can be returned.

**SELL
THEM
SOMETHING
BETTER**



WITH THE

EXCLUSIVE PYRANIT INSULATOR

Better... take the exclusive Pyranit insulator of Robert Bosch Spark Plugs. Exceptionally resistant to high temperatures, mechanical damage, electrical failure. Better... the extended insulator tip avoids fouling without danger of pre-ignition—a design feature Robert Bosch has had for years.

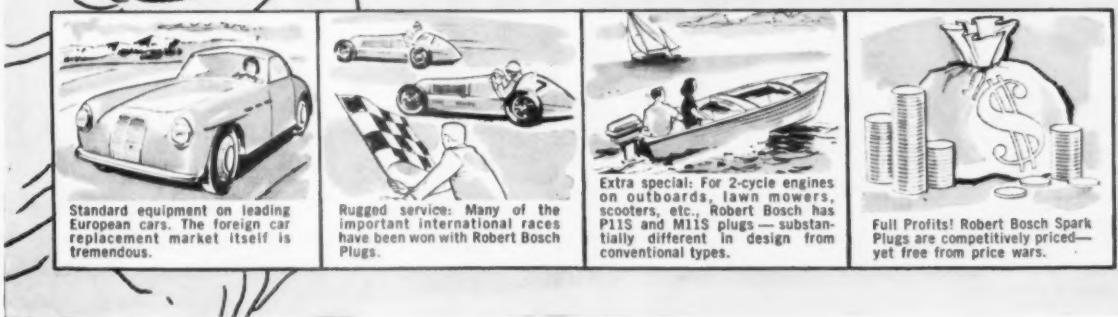
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ROBERT BOSCH CORPORATION

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Branch: 225 Seventh St., San Francisco 3, Cal.

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Standard equipment on leading European cars. The foreign car replacement market itself is tremendous.

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Extra special: For 2-cycle engines on outboards, lawn mowers, scooters, etc., Robert Bosch has P11S and M11S plugs—substantially different in design from conventional types.

Full Profits! Robert Bosch Spark Plugs are competitively priced—yet free from price wars.

1958 New Passenger Car Registrations by Makes by States*

STATE AND MONTH	Buick	Cad- illac	Chev- rolet	Chry- ler	De Soto	Dodge	Edsel	Ford	Im- perial	Lin- coln	Mer- cury	Olds- mobile	Pack- ard	Ply- mouth	Pon- tiac	Ram- bler	Stude- baker	Misc. Dom.	For- eign	Total
Alabama.....	296	101	1482	57	43	116	47	1060	9	19	126	329	1	382	219	132	25	1	297	4,742
5 Mos.	1785	515	7082	280	193	604	250	5555	67	107	653	1713	5	1609	1231	521	126	4	1351	23,851
Arizona.....	86	66	581	22	17	39	29	339	11	21	71	106	1	152	95	115	15	274	2,038	
5 Mos.	559	303	3015	108	27	258	113	1840	56	102	320	628	6	725	496	406	63	1348	10,420	
Arkansas.....	123	60	792	15	11	70	18	595	2	6	54	158	1	173	120	66	22	66	2,371	
5 Mos.	962	348	4636	132	125	476	113	4200	26	68	505	1138	9	1243	828	342	155	1	511	15,818
California.....	1254	1258	9507	416	291	1019	335	7139	140	258	1008	1535	21	3036	1369	1301	191	2	5715	35,786
5 Mos.	7594	6473	47360	230	1789	5837	1650	36084	942	1645	4922	9044	118	1556	7731	4965	1055	13	25902	181,131
Colorado.....	160	83	1238	57	30	112	22	801	8	23	154	265	4	346	173	209	28	380	4,085	
5 Mos.	1055	461	6010	280	210	737	244	4290	71	150	787	1286	9	1742	1015	912	161	15	1592	21,047
Connecticut.....	258	159	1488	100	70	184	55	1191	11	40	158	348	4	633	282	327	60	863	6,229	
5 Mos.	1300	827	6045	489	338	852	282	2194	95	221	700	1663	27	2768	1421	1167	255	4	3301	27,389
Delaware.....	55	45	429	20	19	37	16	230	7	36	88	185	66	38	9	101	1,381			
5 Mos.	351	194	2226	113	95	179	70	1347	17	40	206	470	5	796	370	150	45	441	7,117	
Dist. of Columbia	23	85	384	34	25	56	6	349	11	8	53	102	2	200	88	51	6	5	204	1,722
5 Mos.	323	345	2348	175	122	311	28	1600	74	61	267	554	7	1000	473	171	50	18	874	8,807
Florida.....	726	615	3735	142	140	314	89	3017	65	141	432	898	9	1138	609	605	99	2	268	15,421
5 Mos.	3818	2824	18440	657	602	1362	56	13886	354	711	1898	4172	33	5080	2653	1833	399	13	9172	68,421
Georgia.....	673	274	4150	145	96	293	80	3233	27	49	320	932	11	1033	887	385	141	2	1244	13,753
5 Mos.	2401	885	11834	418	237	880	289	10189	75	190	988	2901	25	2943	2259	778	304	14	3001	40,621
Idaho.....	94	42	364	13	10	35	12	315	11	10	54	94	2	125	107	93	14	154	1,549	
5 Mos.	457	210	1671	101	74	220	88	1296	35	64	282	612	7	510	447	113	1	591	7,261	
Illinois.....	1856	966	8715	366	276	699	179	5639	95	188	622	2232	17	2240	1425	1292	267	37	960	25,291
5 Mos.	9853	4742	41542	2044	1530	3218	1136	27374	521	1155	4142	11729	118	10977	7788	5184	1388	216	3827	138,885
Indiana.....	734	271	2793	101	128	263	125	2337	30	49	273	885	13	537	389	195	2	396	10,397	
5 Mos.	4283	1665	14574	691	691	1513	720	12241	208	356	1644	4765	9	4431	3015	1650	19	1723	55,465	
Iowa.....	342	126	2133	87	55	214	60	1692	9	19	243	441	1	552	325	70	11	207	6,976	
5 Mos.	2034	610	9814	405	280	909	339	8189	65	130	1050	2353	11	1118	1963	888	32	33	788	32,790
Kansas.....	468	156	2017	68	58	185	91	1615	12	27	204	888	9	530	409	204	58	3	273	8,966
5 Mos.	2021	598	8557	372	328	833	369	7211	75	149	910	1999	23	2163	1788	966	12	969	29,616	
Kentucky.....	237	85	1177	39	19	98	32	877	5	21	112	265	2	386	191	100	24	1	162	3,853
5 Mos.	1467	445	6309	225	160	489	246	4584	46	102	713	1633	20	1881	1100	430	122	19	612	20,403
Louisiana.....	246	144	1830	43	36	122	28	1363	14	28	140	429	2	313	251	90	27	323	5,429	
5 Mos.	1786	677	10076	278	202	709	252	8150	79	173	883	2430	8	2046	1792	344	160	18	1439	31,502
Maine.....	103	61	651	34	29	75	27	596	7	7	111	199	116	135	43	243	2,502			
5 Mos.	597	232	2781	111	107	357	77	2373	80	39	336	512	9	909	551	456	165	1	852	10,617
Maryland.....	357	149	2414	95	72	247	48	1944	16	24	213	424	5	841	388	229	55	5	529	7,705
5 Mos.	1828	708	10742	562	439	1207	288	7501	131	134	943	2037	19	3851	1883	769	244	10	2115	35,391
Massachusetts.....	628	335	2991	152	146	380	71	2747	38	69	380	884	8	1294	496	799	74	20	1041	12,533
5 Mos.	2969	1441	11540	739	684	1465	337	10386	170	1311	3750	35	479	2204	2673	314	74	4005	49,222	
Michigan.....	1485	696	7621	243	261	712	196	571	54	165	1073	2005	16	1915	1374	1059	190	1	1205	26,406
5 Mos.	6543	3197	28754	1153	1181	2942	1607	22358	289	803	4105	8539	50	8340	5681	3379	632	27	4046	103,626
Minnesota.....	386	143	2125	103	74	196	75	1750	16	35	220	562	6	758	484	427	124	2	287	7,773
5 Mos.	2874	882	11834	567	472	1295	449	9188	131	233	1338	3411	29	3523	2576	1821	514	144	1155	42,433
Mississippi.....	189	54	940	52	43	68	69	166	11	6	69	185	1	188	144	57	24	112	2,829	
5 Mos.	1052	284	4480	138	122	309	123	3620	35	48	298	1008	4	907	795	217	117	5	461	14,023
Missouri.....	792	375	4331	124	135	421	84	3359	36	57	369	917	4	1152	702	386	128	1	572	13,945
5 Mos.	3127	1248	15944	529	487	1457	410	12349	143	240	1326	3594	32	4367	2714	1170	511	5	1852	51,582
Montana.....	96	37	446	17	16	62	15	369	3	11	58	101	2	142	86	92	29	126	1,708	
5 Mos.	505	210	2016	111	78	275	97	1700	32	53	291	526	5	562	418	394	132	7	416	7,863
Nebraska.....	174	95	1216	36	29	103	14	882	12	14	131	236	1	251	169	147	29	10	163	3,712
5 Mos.	1105	403	5604	222	116	480	141	4533	55	100	602	1255	17	1363	986	543	161	44	607	18,337
Nevada.....	19	18	152	825	66	109	86	725	17	57	158	227	6	249	228	51	53	648	3,856	
5 Mos.	272	143	1654	69	52	196	56	1258	14	34	186	288	1	538	328	386	82	1	782	6,321
New Jersey.....	905	686	4580	362	286	577	20	304	86	95	493	1257	11	1944	855	671	129	5	1309	17,446
5 Mos.	4529	3029	19726	1798	1388	2790	781	13506	456	628	5626	79	8459	4105	2523	672	13	5540	77,780	
New Mexico.....	96	45	589	25	13	65	20	319	10	10	48	145	1	120	86	47	18	1	123	1,042
5 Mos.	557	188	2515	124	93	258	103	1610	37	59	276	604	5	595	491	242	91	2	535	8,385
New York.....	2334	1435	10180	713	526	1364	248	7670	170	1188	3666	27	4250	2019	1689	582	143	3586	47,024	
5 Mos.	11449	6822	43142	3742	2792	618	1468	3153	933	1534	5125	1711	17	9498	5706	1939	292	1387	180,486	
North Carolina.....	454	180	1706	69	60	124	24	8160	13	129	760	1595	22	2852	1284	917	219	126	1350	24,881
5 Mos.	7391	3539	32260	2295	1940	4279	1019	20628	474	730	3678	826	15	1263	6194	3420	1187	144	5281	115,446
Rhode Island.....	84	65	371	27	20	56	6	516	5	7	36	99	1	209	52	157	7	192	1,910	
5 Mos.	427	315	1732	140	104	214	20	218	48	68	172	597	6	276	490	53	1	827	8,447	
South Carolina.....	201	66	790	25	23	78	16	667	4	11	70	151	1	253	143	89	15	235	2,843	
5 Mos.	1161	325	4169	143	139	334	127	3594	35	38	893	6	1222	559	341	59	17	923	14,829	
South Dakota.....	119	35	722	36	31	74	16	655	7	5	74	140	4	199	132	124	2	57	2,457	
5 Mos.	595	149	2765	133	111	270	71	2475	31	39	201	844	9	731	554	366	120	4	203	4,915
Tennessee.....	264	121	1612	49	44	117	41	1139	5	21	129	733	13	223						



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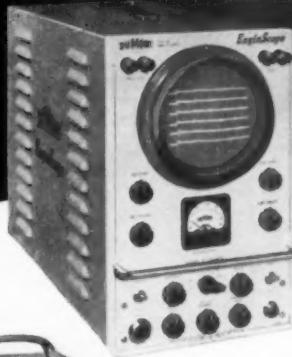
MoPar Division, Chrysler Motors Corporation, Detroit 31, Michigan

1958 Tune-up—Alignment Specifications

MAKE AND MODEL	ENGINE		TUNE-UP DATA										FRONT END ALIGNMENT				
	No. of Cylinders Bore and Stroke (in.)	Maximum Brake H.P.	VALVES				IGNITION				Steering Axis Inclination (Deg.)	Caster (Deg.)	Camber (Deg.)	Toe-In (in.)			
			Spark Plug Make and Size	Seat Angle	Operating Tappet Clearance	Inlet (Deg.)	Exhaust (Deg.)	Inlet (in.)	Exhaust (in.)	Breaker Point Gap (in.)	Cam Angle (Deg.)	Spark Plug Gap (in.)	Timing Spark Occurs ° T. C.				
AMERICAN MOTORS CORP.																	
Rambler	8-5801	8-31 $\frac{1}{2}$ x 4 $\frac{1}{2}$	90	ACA-14	45	45	.016C	.018C	.016	32	.035	3B	8	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-5810	8-3 $\frac{1}{2}$ x 4 $\frac{1}{2}$	127	CA-14	45	45	.012H	.016H	.016	32	.035	5B	6 11'	0 to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-5820	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	215	CA-14	30	45	.012H	.014H	.016	30	.035	5B	6 11'	0 to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-5880	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	270	CA-14	30	45	Hyd	Hyd	.016	30	.035	5B	6 11'	0 to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
CHRYSLER CORP.																	
Chrysler	8-LC1-L	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	280	AL-14	45	45	Hyd	Hyd	.017	30	.035	8B	6 1 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-LC2-L	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	310	AL-14	45	45	Hyd	Hyd	.017	30	.035	8B	6 1 $\frac{1}{2}$	2 $\frac{1}{2}$ N to 3 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-LC3-H	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	345	AL-14	45	45	Hyd	Hyd	.017	38	.035	8B	6 1 $\frac{1}{2}$	2 $\frac{1}{2}$ N to 3 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-LC3-S	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	380	AL-14	45	45	.015H	.024H	.017	38	.035	8B	6 1 $\frac{1}{2}$	2 $\frac{1}{2}$ N to 3 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
De Soto	8-LS1-L	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	280	AL-14	45	45	Hyd	Hyd	.017	30	.035	8B	6 1 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-LS2-M	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	295	AL-14	45	45	Hyd	Hyd	.017	30	.035	8B	6 1 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-LS3-H	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	305	AL-14	45	45	Hyd	Hyd	.017	30	.035	8B	6 1 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-LS3-S	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	345	AL-14	45	45	Hyd	Hyd	.017	38	.035	8B	6 1 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
Dodge	8-LD1-L1, LD1-L2	8-3 $\frac{1}{2}$ x 4 $\frac{1}{2}$	138	AL-14	45	45	.010H	.010H	.020	39	.035	2B	6 1 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-LD2-L1, LD2-L2	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	252	AL-14	45	45	Hyd	Hyd	.017	30	.035	6B	6 1 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-LD2-M	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	265	AL-14	45	45	Hyd	Hyd	.017	30	.035	6B	6 1 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-LD3-L, LD3-H	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	295	AL-14	45	45	Hyd	Hyd	.017	30	.035	6B	6 1 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-LD2 & LD3, D-500 Package	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	305	AL-14	45	45	Hyd	Hyd	.017	30	.035	6B	6 1 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
Imperial	8-LY1-L, LY1-M, LY1-H	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	345	AL-14	45	45	Hyd	Hyd	.017	38	.035	6B	6 1 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
Plymouth	8-LP1-L, LP1-M, LP1-H	8-3 $\frac{1}{2}$ x 4 $\frac{1}{2}$	132	AL-14	45	45	.010H	.010H	.020	39	.035	2B	6 1 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-LP2-L, LP2-M, LP2-H	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	225	AL-14	45	45	.012H	.018H	.017	30	.035	10B	6 1 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-LP2-H Fury	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	290	AL-14	45	45	.012H	.018H	.017	38	.035	10B	6 1 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
	Golden Commando Package	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	305	AL-14	45	45	Hyd	Hyd	.017	38	.035	8B	6 1 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
FORD MOTOR CO.																	
Edsel	8-57A, B; 58A, B; 63A, B; 64A, 78B	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	303	Ch-18	30	45	Hyd	Hyd	.015	27	.034	7B	7	0 to 1P	1 $\frac{1}{2}$ P to 1P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-57A, 57B, 63A, 63B, 78B	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	345	Ch-18	30	45	Hyd	Hyd	.015	27	.034	7B	7	0 to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
Ford	8—All	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	145	Ch-18	45 $\frac{1}{2}$	45 $\frac{1}{2}$	.019H	.019H	.025	37	.034	4B	7 7"	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8—Custom 300, Fairlane	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	205	Ch-18	45 $\frac{1}{2}$	45 $\frac{1}{2}$	.019H	.019H	.015	27	.034	3B	7 7"	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8—Fairlane 500	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	265	Ch-18	60 $\frac{1}{2}$	45 $\frac{1}{2}$	.026H	.026H	.015	27	.034	3B	7 7"	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8—Fairlane 500 Option	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	300	Ch-18	60 $\frac{1}{2}$	45 $\frac{1}{2}$	.026H	.026H	.015	27	.034	4B	7 7"	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8—Thunderbird	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	300	Ch-18	60 $\frac{1}{2}$	45 $\frac{1}{2}$	.025H	.025H	.015	27	.034	4B	7 7"	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
Lincoln	8—All	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	375	Ch-18	29 $\frac{1}{2}$	44 $\frac{1}{2}$	Hyd	Hyd	.015	27	.032	6B	7 26' 10"	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
Mercury	8—Monterey	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	312	Ch-18	60 $\frac{1}{2}$	45 $\frac{1}{2}$	Hyd	Hyd	.015	27	.034	4B	7	1 $\frac{1}{2}$ N to 2N	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ N	$\frac{1}{2}$ to $\frac{1}{2}$	
	8—Montclair	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	330	Ch-18	60 $\frac{1}{2}$	45 $\frac{1}{2}$	Hyd	Hyd	.015	27	.034	4B	7	1 $\frac{1}{2}$ N to 2N	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ N	$\frac{1}{2}$ to $\frac{1}{2}$	
	8—Park Lane	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	360	Ch-18	60 $\frac{1}{2}$	45 $\frac{1}{2}$	Hyd	Hyd	.015	27	.034	7B	7	1 $\frac{1}{2}$ N to 2N	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ N	$\frac{1}{2}$ to $\frac{1}{2}$	
GENERAL MOTORS CORP.																	
Buick	8-80	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	250	AC-14	45	45	Hyd	Hyd	.015	30	.033	5B	7	1 $\frac{1}{2}$ N	1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-80, 60, 70, 700	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	300	AC-14	45	45	Hyd	Hyd	.015	30	.033	5B	7	1 $\frac{1}{2}$ N	1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
Cadillac	8-60, 62, 75	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	310 ³	AC-14	44	44	Hyd	Hyd	.016	30	.035	5B	4	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ N	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$	
Chevrolet	8-1100, 1500, 1700	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	145	AC-14	31	46	Hyd	Hyd	.019	30	.035	TC	7 $\frac{1}{2}$	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-1200, 1600, 1800	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	185	AC-14	45	45	Hyd	Hyd	.019	30	.035	4B	7 $\frac{1}{2}$	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-1200, 1600, 1800	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	250	AC-14	45	45	Hyd	Hyd	.019	30	.035	4B	7 $\frac{1}{2}$	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-867	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	230	AC-14	45	45	Hyd	Hyd	.018	29	.035	4B	4	2 $\frac{1}{2}$ P	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$	
Oldsmobile	8-88	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	265	AC-14	45	45	Hyd	Hyd	.016	30	.030	5B	7	0 to 1N	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$	
	8-S88, 98	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	305	AC-14	45	45	Hyd	Hyd	.016	30	.030	5B	7	0 to 1N	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$	
Pontiac	8-55-25, 58-27, 58-28	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	240	AC-14	30	45	Hyd	Hyd	.016	30	.036	6B	4 $\frac{1}{2}$	0 to 1N	0 to 1P	0 to 1 $\frac{1}{2}$	
	8-55-25, 58-27, 58-28	8-4 $\frac{1}{2}$ x 3 $\frac{1}{2}$	255	AC-14	30	45	Hyd	Hyd	.016	30	.036	6B	4 $\frac{1}{2}$	0 to 1N	0 to 1P	0 to 1 $\frac{1}{2}$	
Studebaker-Packard Corp.																	
Packard	8-58L	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	225	Ch-14	45	45	.024H	.024H	.016	31	.036	4B	6	1N to 2 $\frac{1}{2}$ N	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-58L-K	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	275	Ch-14	45	45	.024H	.024H	.016	31	.036	4B	6	1N to 2 $\frac{1}{2}$ N	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$	
Studebaker	8-58G	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	101	Ch-14	45	45	.016C	.016C	.020	39	.031	2B	6	1N to 2 $\frac{1}{2}$ N	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-58B	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	180	Ch-14	45	45	.024H	.024H	.016	31	.036	4B	6	1N to 2 $\frac{1}{2}$ N	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-58H	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	225	Ch-14	45	45	.024H	.024H	.016	31	.035	4B	6	1N to 2 $\frac{1}{2}$ N	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$	
	8-58H-K7	8-3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	275	Ch-14	45	45	.024H	.024H	.016	31	.036	4B	6	1N to 2 $\frac{1}{2}$ N	0 to 1P	$\frac{1}{2}$ to <	

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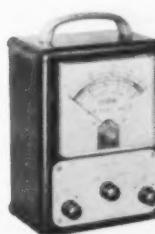
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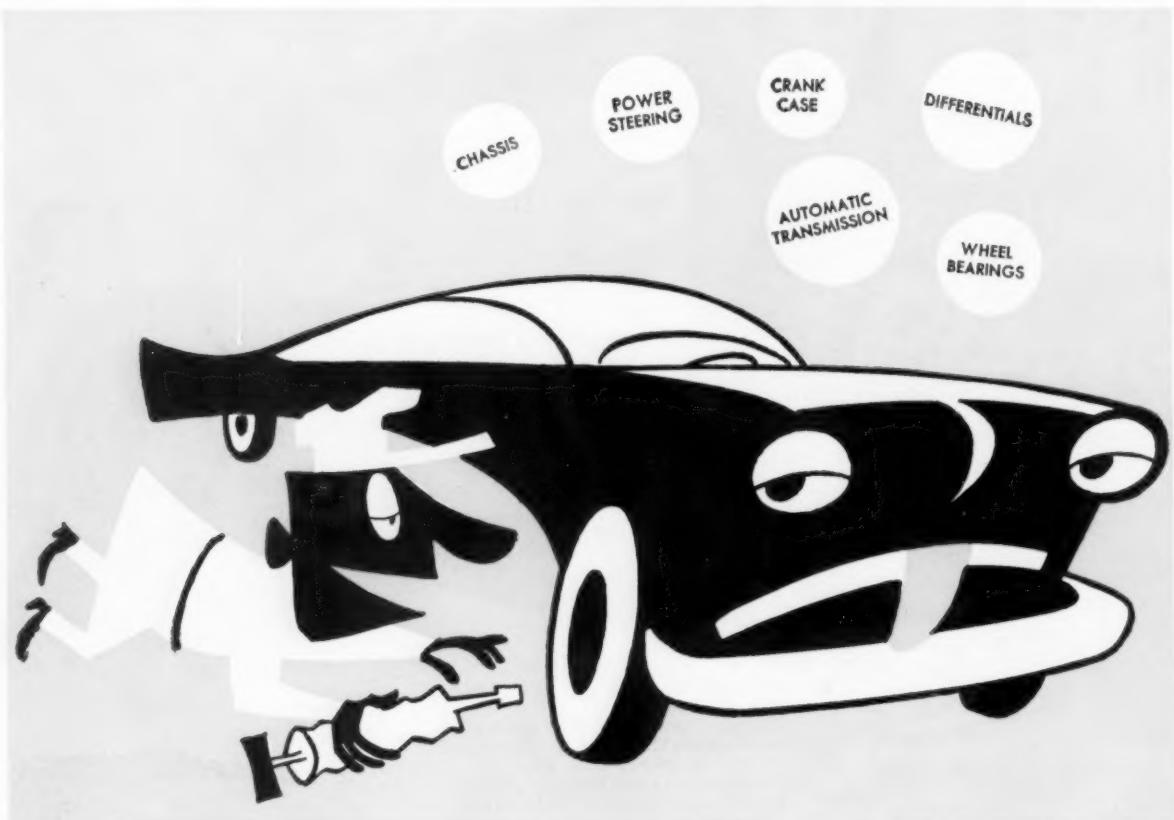
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Sports Page Continued from page 31

a big pool that boiled with rises where the trout were taking everything offered. He said he must have released twenty fish between 9:30 and 10:30 a. m. Evening had brought a hatch of big red spinners that darkened the sky and there was more sport.

When Roy Steenrod invented the Hendrickson fly he named it for Sam's uncle. You don't often meet a man with the same name as a trout fly, except, of course, Mr. Sparse Grey Hackle. Sam didn't seem to mind that Harry Darbee was generous with his services. He said sure, he'd be at the Antrim Lodge at 8:15 a. m., and he was.

It was a gray day with fog wreathing the mountains. It rained, sometimes lightly, sometimes teeming, always cold. Waders that leak above the knee add little to sport. The icy water trickles down and is held in the boot, preserving the foot. Fish rose constantly in the big pool Sam had worked the day before but now they were shy of leaders. Sam's skill brought in three modest trout. John I. Day took one. Harry joined the group later to hook and release four small trout, three large chubs.

Nature Study

For the other member it was a day of nature study. Twenty feet overhead, a merganser flew upstream, honking brassily. Where the road skirts an eminence over the river, two big beaver were seen swimming in tandem formation through the pool below, one of them carrying about a peck of spinachy green vegetation. During the drive

Woman (cleaning fish at sink, to husband)—Why can't you be like the rest of the men? They never catch anything."

back to Roscoe, a doe strolled across the highway and stood posing for a calendar. She had an oddly mottled coat of beige and white, a piebald deer, a pinto.

In the cold evening there had been no hatches on the East Branch. Coming back beside the Beaverkill with some daylight remaining, the cars were halted

by a traffic tie-up caused by a crash. That's how Sam happened to see the spinners overhead. Soon as he got clear of the traffic he parked and went fishing. Took three trout fast.

The man with the name of a trout fly is a fine fisherman. He is also a hero. Not once in that long, cold, almost fruitless day on the East Branch did he say, "You shoulda been here yesterday."

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be put in a lathe and a light cut taken on the commutator to true it up.

After turning down the commutator, the insulating blanket between the bar should be up undercut.

Check the brush spring tension. Excessive tension will cause rapid commutator and

brush wear. Low tension will cause arcing of the brushes and commutator and will reduce generator output. Replace worn brushes.

Resistance in Ignition Circuit

Energy is lost whenever resistance is present in a circuit. Oxidized, burned or pitted dis-

tributor contacts offer resistance to the flow of primary circuit. A loose connection or a poor ground at the condenser will cause faulty ignition. Connections at the battery, ammeter, coil, and ignition switch should be clean and tight.

Poor Insulation and Ignition

Insulation and ignition circuit is very important. The high tension cable should not be oil-soaked, cracked, or punctured, as this will result in loss of electrical energy. Examine the distributor cap and rotor for burned spots. If any of these conditions are present, the cables or distributor cap or rotor should be replaced.

Spark plug should be cleaned when dirt, oil, and carbon are present. Replace the plugs if the points are badly burned or the porcelain cracked. The size of the gap determines the voltage required to fire the plug. A high speed engine miss can sometimes be traced to a wide spark plug gap. Set the plug caps according to the manufacturers specifications.

Arcing Across Coil Terminals

When excessive moisture collects on the coil top, the high tension spark will sometimes arc across to the low terminal, causing the engine to miss. Continued arcing will eventually burn a path across the surface of the coil top. In cases where arcing occurs, it is recommended that a rubber nipple be used on a high tension terminal.

Condenser Checks

Low insulation resistance or leakage prevents condenser from holding the charge. The condenser with low insulation resistance is said to be weak. All condensers are subject to leakage, which up to a certain limit is not objectionable. When it is considered that the ignition condenser performs its function in approximately $\frac{1}{2}$ thousands of

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a second it can be seen that the leakage can be large without detrimental effects. It must be considered however in any condenser test.

High series resistance is excessive resistance in a condenser circuit due to broken strands in the condenser lead, or to defective connections. This will cause burned contact points and ignition failure upon initial start and at high speed. Capacity is built into the condenser and is determined by the area of the metallic elements and the insulating and impregnating materials. A low capacity condenser is suitable for an operation where high speeds predominate. While a higher capacity condenser is desirable for low speed operation. Incorrect capacity for the type of operation will result in point pitting. The direction of the pit and the build-up can be used as a basis for analysis and correction of the condition. If the build-up is on the positive side, the condenser may be under capacity. If the build-up is on the negative side, the condenser may be over capacity.

Another factor which may effect point pitting is the position of the primary and secondary leads with respect to each other and to ground. Incorrect location may result in point pitting.



Charles Blue, owner of the Marathon Service Station in Ft. Wayne, Ind., shows customer one of newest auto accessory items he is merchandising via a point-of-sale display. Item is a Rubbermaid Kar Litter Basket that fits on passenger side kick panel.

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CURRENT PASSENGER CAR PRICE, WEIGHT AND BODY TABLE

Following are prices at factory for cars with standard equipment as of July 11, 1958
State or local taxes, transportation and finance charges and optional equipment are extra.

BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges at Factory including Federal Taxes	Shipping Weight		
AMERICAN MOTORS CORP.																	
RAMBLER				CHRYSLER CORP. cont'd				FORD MOTOR CO. cont'd				GENERAL MOTORS. cont'd					
American				DODGE, Cont'd				FORD, Cont'd				CADILLAC, Cont'd					
Del. Sedan, 2d	1631	2463	2463	Regal, V8	2968	234	3200	Sta. Wagon, V8	2293	186	2479	Imperial	7950	725	8675	5425	
Sed. Sedan, 2d	1710	2475	2475	Lancer, 2d	2715	215	2930	Ranch Wag., 2d	2243	190	2533						
De Luxe 6				Sta. Wagon	2775	220	2995	Ranch Wag., 4d	2392	193	2585	CHEVROLET					
Sedan, 4d	1875	172	2047	Suburban	2907	230	3137	Del Rio Wagon	2442	197	2639	Delray V8	1924	196	2120	3355	
Super 6				Sierra, 2d	2940	232	3172	Ctry. Sed., 8p.	2542	204	2746	Utility Sed., 2d	2005	203	2208	3395	
Sedan, 4d	2028	184	2212	Cus. Sierra, 2d	2940	232	3172	Country Squire	2663	213	2676	Sedan, 4d	2055	207	2262	3442	
H. T. Sedan, 4d	2088	189	2287	Cus. Sierra, 3d	3072	242	3314	Thunderbird	3330			Sta. Wagon, 2d	2294	226	2520	3696	
Sta. Wagon, 4d	2302	204	2506	3069				Tudor Convertible	3708			Sta. Wagon, 4d	2344	230	2574	3743	
Custom 8				IMPERIAL								Biscayne V8					
Sedan, 4d	2135	192	2327	Imperial	4417	347	4764	4640	4415			Sedan, 2d	2131	212	2343	3407	
Sta. Wagon, 4d	2409	212	2621	Southampton, 2d	4516	354	4870	4795	4553			Sedan, 4d	2181	236	2397	3450	
Rebel, Sup. V8				Southampton, 4d	5155	402	5557	4915	4953			Sta. Wag., 4d, 6p.	2441	237	2678	3751	
Sedan, 4d	2149	193	2342	Crown	5155	402	5557	4915	4953			Sta. Wag., 4d, 6p.	2541	244	2785	3833	
Sta. Wagon, 4d	2423	213	2636	Southampton, 4d	5155	402	5557	4915	4953			Bel Air V8					
Rebel, Cus. V8				Hardtop, 2d	4928	385	5313	4730	4810			Sedan, 2d	2270	223	2493	3427	
Sedan, 4d	2256	201	2457	Southampton, 4d	5155	402	5557	4915	4953			Sedan, 4d	2320	227	2547	3470	
H. T. Sedan, 4d	2326	206	2532	3113	5155	402	5557	4915	4953			Sport Coupe	2226	228	2554	3565	
Sta. Wagon, 4d	2530	221	2751	3148	5273	411	5684	4820	5124			Sport Sedan	2388	231	2618	3514	
Amb. Sup. V8				Le Baron	5273	411	5684	4820	5124			H. Impala, 2d	2458	237	2683	3489	
Sedan, 4d	2369	218	2587	Continental	5468	426	5894	4700	5367			Imp. Conv., 2d	2593	248	2641	3523	
Sta. Wagon, 4d	2643	238	2681	Coupe, 2d	5468	426	5894	4940	5367			Sta. Wag., 4d, 6p.	2835	271	2835	3771	
Amb. Cus. V8				Sedan, 4d	5597			Hardtop, 4d	5597			Corvette	3335	296	3631	2781	
Sedan, 4d	2504	228	2732	Limousine	14019	961	15000	5960	5960								
H. T. Sta. Wag.	2588	234	2622	3175				5040									
Sta. Wagon, 4d	2778	248	3026	3568													
H. T. Sta. Wag.	2862	254	3115	3586													
CHRYSLER CORP.																	
CHRYSLER				PLYMOUTH				MERCURY				OLDSMOBILE					
Windstar				Plaza V8	1943	158	2101	3320	3488			Series 88					
Sedan, 4d	2849	225	3074	3895	2026	164	2190	3315	3422			Sedan, 2d	2514				
Hardtop, 2d	2928	231	3159	3860	2200	178	2378	3400	3488			Sedan, 4d	2574				
Hardtop, 4d	2988	236	3224	3915	2222	179	2401	3400	3488			Holiday Coupe	2627				
Twn. & Ctry. 2s	3302	259	3561	4155	2288	184	2472	3475	3532			Holiday Sedan	2699				
Twn. & Ctry. 3s	3476	272	3748	4245	2278	183	2461	3370	3522			Conv. Coupe	2931				
Saratoga				Club Sedan	2153	174	2327	3360	3510			Fiesta Sedan	2990				
Sedan, 4d	3485	273	3758	4120	2300	174	2327	3360	3510			Ht. Fiesta	3093				
Hardtop, 2d	3541	277	3818	4045	2300	174	2327	3360	3510								
Hardtop, 4d	3613	282	3895	4145	2300	174	2327	3360	3510								
New Yorker				Suburban V8	2278	183	2461	3370	3510								
Sedan, 4d	3923	307	4230	4195	2300	186	2504	3645	3566								
Hardtop, 2d	3971	311	4262	4205	2300	186	2504	3645	3566								
Hardtop, 4d	4024	315	4339	4240	2300	186	2504	3645	3566								
Conv. Coupe	4356	340	4696	4350	2300	186	2504	3645	3566								
Twn. & Ctry. 2s	4556	347	4803	4205	2300	186	2504	3645	3566								
Twn. & Ctry. 3s	4656	362	5018	4445	2300	186	2504	3645	3566								
300D				Hardtop, 2d	2318	186	2504	3645	3566								
Hardtop, 2d	4740	368	5108	4305	2318	186	2504	3645	3566								
Conv. Coupe	5140	398	5538	4475	2318	224	3032	3510	3566								
DE SOTO																	
Fire Sweep				EDSEL				BUICK				GENERAL MOTORS CORP.					
Sedan, 4d	2567	207	2774	3660	Ranger			BUICK									
Sportman, 2d	2633	212	2845	3660	Sedan, 2d	2300		Special 40									
Sportman, 4d	2692	216	2908	3720	Sedan, 4d	2300		Coupe									
Conv. Coupe	2939	225	3174	3850	Sedan, 4d	2368		Sedan	2388								
Sta. Wagon, 2s	2963	230	3221	3955	Hardtop, 2d	2387		4448									
Sta. Wagon, 3s	3115	248	3363	3980	Hardtop, 4d	2446		4450									
Fire Flame				Hardtop, 2d	2499			4452									
Sedan, 4d	3210	200	3235	3980	Hardtop, 4d	2554		4454									
Sportman, 2d	3264	206	3260	3920	Hardtop, 4d	2618		4456									
Sportman, 4d	3406	270	3676	3980	Convertible	2771		4458									
Conv. Coupe	3630	267	3917	4105	4458			4460									
Twn. & Ctry. 2s	3654	281	3975	4225	4460			4462									
Twn. & Ctry. 3s	3686	301	4117	4295	4462			4464									
Adventurer				Sta. Wagon	3216			4466									
Sportman, 2d	3722	284	4016	4000	3216			4468									
Conv. Coupe	3998	315	4314	4180	3216			4470									
DODGE				FORD				4472									
Coronet 8				Custom V8	1923	156	2079	3283	3488								
Club Sedan	2235	179	2414	3380	Tudor Sedan	2004	163	2167	3306	3488							
Sedan, 4d	2310	185	2495	3410	Ford Sedan	2054	167	2221	3334	3488							
Lancer, 2d	2349	187	2536		Fairlane V8	2147	173	2320	3431	3488							
Coronet V8				Club Sedan	2197	177	2374	3483	3488								
Club Sedan	2335	186	2521	3505	Town Sedan	2271	162	2453	3429	3488							
Sedan, 4d	2410	192	2602	3555	Club Victoria	2271	162	2453	3429	3488							
Lancer, 2d	2449	195	2644	3540	Town Victoria	2332	185	2517	3506	3488							
Lancer, 4d	2528	201	2729	3605	Club Sedan	2289	184	2473	3454	3488							
Convertible	2693	214	2907	3723	Town Sedan	2339	188	2527	3526	3488							
Royal V8				Club Victoria	2345	193	2534	3464	3488								
Sedan, 4d	2554	203	2757	3570	Town Victoria	2405	193	2586	3561	3488							
Lancer, 2d	2607	207	2814	3865	Club Sedan	2289	184	2473	3454	3488							
Lancer, 4d	2664	211	2875	3640	Town Sedan	2339	188	2527	3526	3488							
Cus. Roy. V8				Club Victoria	2345	193	2534	3464	3488								
Sedan, 4d	2768	219	2985	3840	Town Victoria	2405	193	2586	3561	3488							
Lancer, 2d	2804	222	3026	3810	Club Sedan	2289	184	2473	3454	3488							
Lancer, 4d	2870	227	3097	3870	Town Victoria	2405	193	2586	3561	3488							
Convertible	3015	238	3253	3785	Club Sedan	2339	188	2527	3526	3488							

* Prices of 6 cyl. models are \$137 less than 8 cyl. models
for the Custom; \$124 for the Fairlanes and \$107 for the Station Wagons.

* Prices of 8 cyl. models are \$100 less than 8 cyl. models.

Because it's Homogenized

YOU JUST PUNCH AND POUR!



**QUICK
AND
EASY**

No messy lids to pry off!

**NO SHAKING
NO STIRRING
NO MIXING**

Complete Radiator Protection in 30 seconds

**WYNN'S
RADIATOR ADDITIVE**

Reach greater profits—
REACH FIRST
FOR THE FASTEST!...

Wynn's Radiator Additive
is quick and
easy to use...effective!



Complete Cooling System Protection in 1 Can!

- ✓ prevents leaks in radiator and cooling system
- ✓ lubricates thermostat and water pump
- ✓ removes scale and rust
- ✓ seals cracks in blocks

**WYNN'S RADIATOR ADDITIVE IS
AN ALL YEAR PROFIT MAKER**

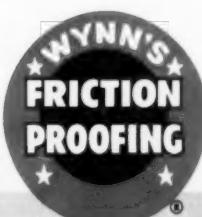
ORDER FROM YOUR WYNN'S FRICTION PROOFING SALESMAN TODAY!

THE Proof IS IN THE Performance!

Also available in Canada and everywhere in the free world.

Litho in United States of America

*Friction Proofing is Wynn's Trade Mark for its exclusive metal conditioner which reduces friction between moving metals by chemically smoothing and sealing the surfaces. Manufactured by Wynn Oil Company, 1151 West Fifth Street, Azusa, California, U.S.A.



Know the Law

Continued from page 57

automobile came of age completely in the eyes of the law when the members of an average jury were familiar with its operation. In 1936 the Supreme Court of Minnesota in Williams vs. Russell declared: "No longer can it be said that jury men and women are inexperienced or in expert in respect of the handling of an automobile. The ownership and driving of such vehicle are now so common that one may safely say that practically all jurors are experienced in respect of their operation."

The impact of the automobile on the law was well expressed in 1943 by the Supreme Court of Georgia in Gardner vs. City of Brunswick. The Court said: ". . . the automobile has introduced into police law many questions affecting the lives, health, happiness, personal and property rights, and general welfare, safety, and protection of the people, all of which have to be considered, safeguarded, and defined according to the particular facts entering into each case."

Wylie Gets New Dodge PR Post

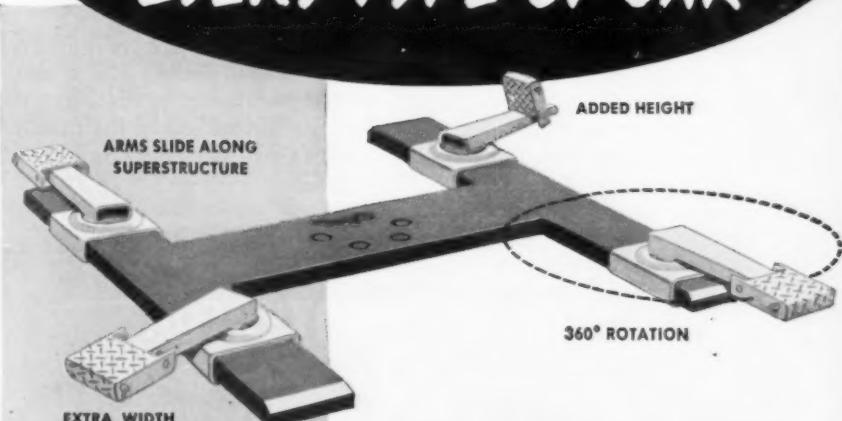
Promotion of Frank Wylie to the newly-created position of director of public relations, Dodge cars and trucks, was announced by M. C. Patterson, Chrysler vice president and Dodge general manager.

Wylie joined Chrysler Corporation in 1948. Then he worked on technical writing and displays for the Engineering Division.

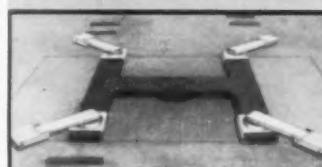
In 1953 he joined the Central Sales Staff. He was appointed manager of Chrysler Corporation's traveling engineering show, "New Worlds in Motion."

In November of the same year, Wylie transferred to the Chrysler public relations staff.

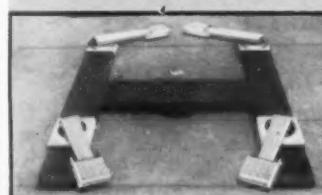
QUICK ALL AROUND SERVICE LIFT TO HANDLE EVERY TYPE OF CAR



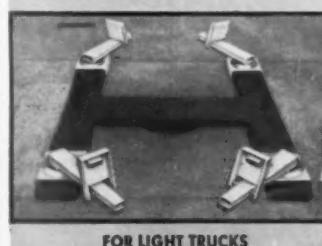
WAYNE FRAME LIFT



POSITION FOR FRAMELESS CARS



POSITION FOR X FRAME CARS



FOR LIGHT TRUCKS

HANDLES X-FRAMES OR FRAMELESS CARS NO ADAPTERS NEEDED

Standard frame, X-Frame or frameless . . . from the small Isetta to light trucks the new Wayne "Circle Service" Frame Lift handles them all with positive, slip-proof support. No adapters needed for different types of cars. Swivel arms swing a full 360° to fit the widest or narrowest frame . . . also slide on superstructure to give extra length.

Makes all under car parts accessible for repairing and lubrication . . . speeds tire service. Available as full or semi-hydraulic with or without safety leg, and low oil control. Write for new folder to . . .

THE WAYNE PUMP COMPANY
Division Symington Wayne Corp.
Salisbury, Maryland • Toronto, Canada

Wayne

LIFTS

Unsafe Vehicles Continued from page 43

say "they mean someone else, not me." And this personal, local job presents an opportunity for garage owners such as no other service industry, that I know of, has.

First, safety checks and state inspection records show there are a very large number of vehicles operating on our high-

ways that are mechanically unsafe. Putting these cars in safe mechanical condition, can be, and should be, business for garage owners.

Second, it is not really difficult to sell safety to a car owner because it is his car, his life, the protection of his family—all things very dear to him—

that you are talking about.

And third, in selling safety, you are selling something—the most publicized thing in America—that already has been pre-sold by the widest kind of publicity on radio and television, in newspapers and magazines.

Millions of unsafe cars—protection of car, life and family—and tremendous publicity. Can you think of any better combination of things so favorable to the garage owners' business?

Two years ago my company made a nation-wide survey on the possibilities of garage owners selling more brake service work. In 70 towns and cities across the country, our salesmen, in their customers' garages, contacted car owners who came in for other than brake work, with the suggestion, "While your car is here let us inspect your brakes. It's part of our regular service."

We had been told it couldn't be done. We had been told that we'd find out that asking permission to pull a wheel was like asking permission to pull a tooth.

Well, 86 per cent—and that's 8 out of 9—of the drivers so approached did let them pull a wheel. Of these, two-thirds needed some brake work, and half of these needed and bought—right then—a brake reline. The net result showed that 10 minutes spent in pulling a wheel resulted in an average of \$14.00 worth of brake service work for the garage owner. And a similar survey last year developed practically the same figures.

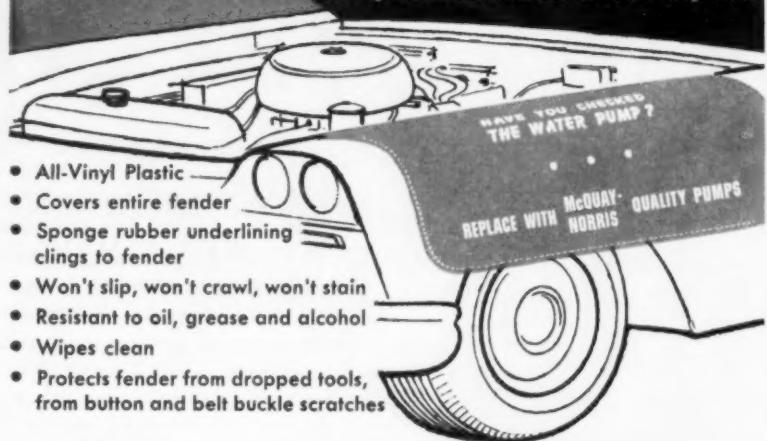
From this experience, I am convinced that few car owners will resent or resist a courteous approach that offers an inspection of any part of a car that has to do with his safety. And such inspection, in the garage, where it can be made properly, pays off—both in Highway Safety, and in business for the garage owner.

Analysis of an inspection re-

CUSHIONED FENDER PROTECTOR

\$7.00 value for \$2.49

when purchased with our Water Pump Plan



Plus FREE 4-color wall banner...two colorful streamers promoting water pump replacement...water pump chart with application and prices.

PROFIT NOW... PAY LATER

on **McQUAY-
NORRIS
WATER PUMPS**

Just order any five water pumps covered in our deferred payment plan. You get immediate delivery, you pay later on terms arranged directly with your wholesaler. Don't pass up this great opportunity!

*All-New
Pre-Tested*



SEE YOUR McQUAY-NORRIS WHOLESALER FOR FULL DETAILS
McQUAY-NORRIS MANUFACTURING CO. • ST. LOUIS • TORONTO

port by another industry firm reveals that 7 out of 10 vehicles should have front end service, and that 5 out of these 10 will buy it. 8 out of 10 need wheel balancing, and 6 will buy. 8 out of 10 need headlight adjustment, and 6 will buy this service. And surely it isn't necessary for me to tell you that a great many mufflers and tail pipes need replacing and can be sold, by inspecting those on cars that come into the shop...

How many times have you said, or have heard your employees say, that a car owner is interested only in price? This is one of the greatest mental blocks in this industry today. It is being said so many times that many people are believing it. And because they believe it, many independent garages seem to operate under a policy that the only way to sell their services is by selling cheap, by meeting, or under-bidding the other fellow's price. They overlook the fact that when they sell "price", as some are prone to do, they hold their customers only until the day when some competitor offers a lower price.

This has been one of the basic reasons why so many garage owners will tell you they are not able to pay wages high enough to hold good mechanics.

Actually, the car owner isn't interested in price alone. His interest is value. And when it comes to the safety I have been talking about, think what that interest in value is. It is interest in the safety of his car, his life, and the protection of those who drive with him. You, and your employees, must sell him on the fact that you offer him greater safety—not only for today, but for tomorrow also.

But don't forget that the price at which you can sell may depend on how good your services are. If they are tops, you are entitled to a better price than the fellow down the street who does a half-way job. But see to it that

your services are tops. Install well-advertised, known-brand, quality parts—do quality work—do a complete job. Then take full advantage of the opportunity to emphasize to your customer the very real protection he enjoys because of these quality factors.

It is my sincere conviction that, whether it be a manufacturer or a garage owner, concerns which put quality first, and have the courage not to compromise with quality, will not only stay healthy, but will continue increasing their share of the business available.

Do not be afraid to ask a fair price for the job. Work to sell car owners safety, as I have suggested, but work even harder to do a good job of selling at prices required to earn a fair profit.

Gentlemen, we cannot afford the extravagance of the death toll, the injuries, and a traffic accident cost of well over seven billion dollars a year. It is time for all of us to accept some of the responsibility of preserving the lives and properties of our customers.

As a suggestion: I would like very much to see all I.G.O.A. members, on a national scale, conduct safety inspections in their shops, all using a standard courtesy inspection form, that car owners across the nation would come to recognize as part of a national program for Highway Safety. This is not just a theoretical suggestion. It is something that could be done—something that would help make our highways safer, something that would help the business of independent garage owners.

Classified Advertisement

SALES CAREER: Nation-wide automotive parts mfr.-distributor offers depression-proof sales opportunity. Protected territories with established accounts now available. Average earnings \$8,000 to \$10,000 per year. Great opportunities for advancement to executive positions. Write today giving background & sales experience. Box 8, MOTOR AGE, 5601 Chestnut St., Philadelphia 39, Pa.

IT'S A FACT!

JUST 1

Cordomatic®

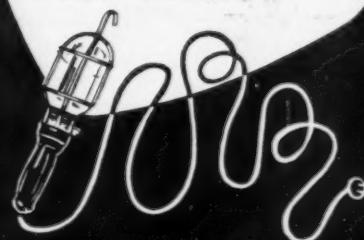
DROP LIGHT
REEL



OUTLASTS

12

OLD FASHIONED
DROP CORDS!



... And Gives You Years of Increased Economy, Convenience and Safety, Too!

Cordomatic not only costs less than any other shop light in the long run, it saves you time and money on every job! Cordomatic reels in and out automatically . . . can't cause accidents like ordinary drop cords. Once you try a Cordomatic, you'll never go back to dangling, tangling drop cords again!

See your jobber for a demonstration, or write for free illustrated brochure to:

Cordomatic®

Dept. A • 17th and INDIANA AVE.
PHILADELPHIA 32, PA.

As pointed out last month, the award symbolizes the volume work done by thousands of automotive service establishments around the country by calling attention each month to one member of this group.

The award-winning Spangler garage location occupies 6400 square feet. Site is just beyond

bustling downtown Indianapolis. Because of the plentifullness of skylights in the roof of the Spangler building, one gets the impression he's not indoors at all.

The building's front has two large overhead doors. Both the rear of the building and one side has its own door. A recently

completed black-topped driveway adds to the clean attractive appearance.

Inside is a formidable array of six lifts—4 regular and 2 of the two-post variety. One side of the garage is used for greasing, tune-ups, brake relining and wheel alining. The other caters to automatic transmissions, mufflers, rear axle jobs. The rear entrance has generous space for two cars, for major overhaul jobs. Here, Spangler diligently maintains one full-time mechanic. Next to the garage is a fully-equipped machine shop (valve facing, press, lathe, etc.). Merely one man has control of this operation and, understandably, this man is Bill Spangler.

With nine competent, full-time mechanics and the finest equipment, Spangler's Garage is obviously equipped for "volume" business. This is describing it rather mildly. At present, Spangler and his mechanics are producing two to three engine overhauls a week. Automatic transmission repair jobs average nearly four to six per week. During one month last year three mechanics raced off 250 brake jobs! (Mechanics are salaried, jobs flat rated.) To keep pace with this production schedule, Spangler recently began a card index for his parts department.

The man who began business in a crude shack is well aware of comfort. Particularly the customer's. He's provided an orderly waiting room with knotty pine walls, comfortable chairs and plenty of magazines. If you like, there's a view of a cemetery across the street.

What about Bill Jr.? Well, born and raised in the shadow of the famed Indianapolis '500, he's taken to the race as a hobby. He also purchased the business from his father. Dad now works for son. Each year "young" Bill usually works on one of the big racing cars. This year, for example, it was the Pete Schmidt Special.

Be a LIFESAVER!



Meets or exceeds SAE specifications 70R3 & 70R1

HEAT RESISTANCE exceeds all SAE specifications

RUST RESISTANCE exceeds all SAE specifications

VISCOSITY exceeds all SAE specifications

STABILITY exceeds all SAE specifications

COMPATIBILITY meets all SAE specifications



Puritan Super 60 Brake Fluid has the MAXIMUM safety margin

Your customers may not be aware of the high temperature problem of the new, smaller brake drums . . . so help keep them alive by selling Puritan Super 60 Heavy Duty Brake Fluid. Your NAPA jobber has the *Life Saver* story that leads to customer satisfaction and repeat sales.

OLIN MATHIESON CHEMICAL CORPORATION

Automotive Products Department — Baltimore 3, Maryland

PESSIMIST...

"These Ignition Contacts
are half worn out."

OPTIMIST...

"Half the life of these
Ignition Contacts is left."

REALIST...

"When contacts show the slightest
pit or oxide, I always install
new ECHLIN Contacts for top
engine performance."

MOTORIST...

"My car performs like new.
I'm going back to that Shop
for service next time."



ECHLIN



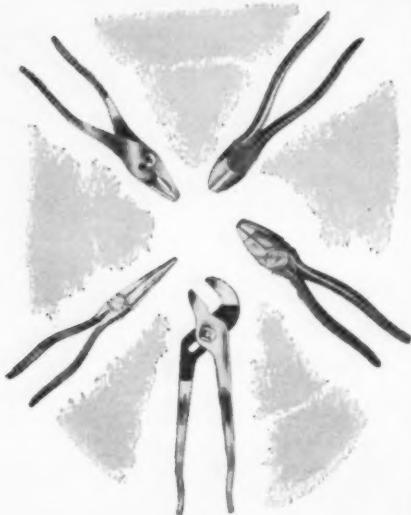
Ignition

**Millions Use It
Experts Choose It!**

ECHLIN MANUFACTURING COMPANY • BRANFORD, CONN. • U.S.A.
ECHLIN IGNITION OF CANADA LTD. • 56 CONNIE ST. • TORONTO 15, CANADA

You'll DO THE JOB EASIER WITH THE RIGHT PLIER

CHAN NEL LOCK



Full Polish Finish Quality Pliers

Any job is a hard job without the right tools. These special purpose Channellock quality pliers will help you do hundreds of jobs easier, faster. They're precision-built of high grade drop forged steel to last longer, work better. And you'll like the gleaming, full-polished finish at no extra cost.

Ask for Genuine Channellock pliers by name.
Look for the trademark on the handle.

CHAMPION DeARMMENT TOOL COMPANY
MEADVILLE, PENNSYLVANIA

The Eaton Story

Continued from page 45

already noted this is done mainly on the second floor in a neat workshop area with plenty of light and work benches.

In ferreting out Ed Eaton's high volume formula—his shop's gross ran in the neighborhood of \$90,000 last year—we can find five elements that stand out. Well worth considering.

1. Owner-manager Eaton insists on the latest equipment and tools for his shop and mechanics. This equipment is top-notch and maintained in good working order.

2. Eaton keeps informed on the trends and changes in the industry, particularly from the repair and mechanical standpoint. The trade press and service manuals are "musts" to him.

3. Eaton insists on careful work by all of his staff. Scrupulous attention to details of each repair job.

4. Use only quality parts and accessories in making a repair or special installation on a customer's car.

5. Keep a well-supplied parts department. Be wary of too many "shorts." Have the part on hand and keep adequate records to control the flow of this high inventory.

If Ed Eaton is faced with any more problems than the happy one of having to turn away customers, it's this one: He needs more space. Although he bought the two-story building in 1940, it is apparently not enough for his present day needs. With a staff of four mechanics, besides himself, he handles about 10 to 12 cars per day. He maintains a lot nearby to store serviced cars. Or to hold cars waiting their turn in the shop area.

Ed is quick to refer to a job (that he can't handle because of an already high waiting list) to other qualified shops around town. Remarkably this has boosted his business.



Having reached the retirement age of 78 as a steel company engineer, Eugene Lombard, Sr., has started a new career as an auto salesman. He recently completed a retail salesman's training course in Pittsburgh conducted by Chevrolet. He receives completion certificate (above) from A. C. Mayo, GM's eastern regional sales promotion manager.

Andrew D. Grey Dies in Philadelphia

Andrew (Andy) D. Grey, Editor of Chilton's Automotive Book Dept. died June 18 in Philadelphia from a heart ailment. He was 48 years old.

Mr. Grey, who joined the Chilton Co. in 1934, was known to thousands upon thousands of automotive servicemen throughout the country for his excellent editorship of Motor Age's Flat Rate and Automobile Repair manuals. Mr. Grey also served as the editor of the Body and Frame Manual and Chilton's Wreck Estimator.



Andrew D. Grey

He made his home at 41 South Madison Avenue in Upper Darby, Pa. Surviving are his widow and four children.

Increase Profits by protecting customers...

CHECK THE BELTS



Two (and often three) V-belts are standard equipment on many cars today. Naturally, this increased use of V-belts has pushed replacement V-belt sales up and up — and has made the opportunity for profits from belts greater than ever.

That's why it's important for you to check the belts *every time a car hood is raised.*

Another reason for making belt checking a *standard practice* is that it protects your customers. *It doesn't pay to let them*

take chances with belts that should be replaced.

Gates V-Belts are quickly and easily installed.

There is a Gates V-Belt for every make and model of car. Every belt fits correctly because it is *precisely engineered*. And no time is lost in making the sale; every car owner recognizes and trusts the name of Gates—*World's Largest Maker of V-Belts.*

Your nearby Gates jobber will fill your belt needs promptly...will provide you with a handy display rack.

The Gates Rubber Company, Denver, Colorado

World's Largest Maker of V-Belts



To find
belt wear
always
turn belt
over

The underside
of the belt
...not the top
...tells the true
condition of
the belt.

REPLACE BELTS
LIKE THESE:

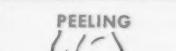


CRACKED

GREASY



GLAZED



PEELING



SPLIT

Gates Vulco V-Belts

New Products Continued from page 62

vides a 16 x 32-in. keyboard with hooks for 126 numbers. Other catalog sections contain illustrations of U. S. vehicle blanks, spanning 1940 to 1958 models.

336. Auto Flasher Data

Tung-Sol Electric, Inc.: Announced publication of a one-page Flasher Specification Chart

and Price List. Both dealer and suggested retail prices are provided. Flashers date back to 1946 model automobiles. The catalog contains working specifications, application notes, outline drawings and physical dimensions.

337. Air Hammer Kit

Superior Pneumatic and Mfg.,

Inc: An air hammer kit to remove mufflers and tail pipes is available at a modest price. It consists of a Superior SP-700 air

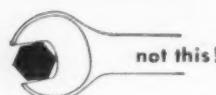


hammer, flat chisel and muffler cutting tool. The air hammer, with a metering trigger controlling blows from 0 to 2800 per minute, weighs nearly 3½-lbs, measures 8-in. It operates on standard service station or garage compressors. According to the producer, the chisel and muffler will remove an average muffler and tail pipe within three minutes.

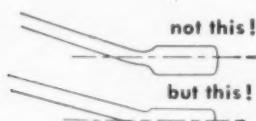
338. New Battery

Seranton Battery Corp: A new battery with unique air-cooled plastic cells that can be replaced individually is being readied for national distribution. This means defective cells can now be re-

NEW Herbrand "HEX-FIT" fits the hex as an end wrench should!



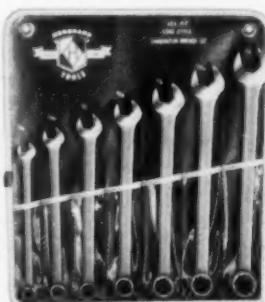
Contour-shaped open end fits the hex nut or bolt with absolute accuracy for perfect performance.



LONG
COMBINATION
WRENCH . . .
hand polished
to a jewel-rich
finish.

6 AND 12
POINT
OPENINGS

Each set includes
7 sizes — 3/8",
7/16", 1/2",
9/16", 5/8",
11/16", 3/4".



"HEX-FIT" series combination wrenches
with hex style open ends and 6 or 12 point box ends are adaptable to all repair and maintenance jobs. Long and rapier-thin, they permit extra speed in handling—give better leverage and balance. Narrow, compact heads provide easy access to hard-to-reach areas. "Hex-Fit" wrenches will offer long, profitable service to the mechanic who demands the finest in tools. Sets are in vinyl rolls or fibre boxes. Ask your jobber.

Herbrand Tools HERBRAND DIVISION

THE BINGHAM-HERBRAND CORPORATION • FREMONT, OHIO



placed, instead of replacing entire unit. The battery ("Cellomatic") has high-impact, non-porous plastic cells within a polyethylene frame. The com-
(Continued on page 103)

Electronic Longhand . . . *Continued from page 52*

also used for paging employees. So our switchboard operator would be paging someone at the same time the cashier wanted to use the system to order a car. And the car would have to wait.

Just when it appeared that this situation might be building up at Con Frazier, the writer saw a device in operation at a local cleaning firm. It let the clerk at the front counter transmit a handwritten order for garments back to where the garments were stored. The system seemed fast. Because the information was in written form, the chance of error appeared small.

We investigated this equipment, manufactured by the TelAutograph Corporation, and subsequently installed it here. The results have been very good.

Now, when customers come in to pick up their cars, they get them promptly. They get them in turn also. Yet, we are accomplishing this with only three drivers. Without the TelAutograph equipment we would need at least five for our present volume, and doubt seriously that they could do the job as well.

Here's how the system is set up:

When a customer comes in and pays his bill, our cashier turns to the transceiver located beside her. Using a pen-like stylus, she writes on a metal plate the last three digits of the repair order number. Also the year and model number of the customer's auto.

This information is simultaneously written in ink on the paper in her transceiver, and on paper in a TelAutograph receiver. The receiver is located at the drivers' station in the center of the shop area. The equipment operates on a variable voltage principle. Movement of the stylus changes voltages going over the wire which connects the two instruments. This

change in voltage magnetically moves the pens on the transceiver and receiver in exactly the same manner that the cashier moves the stylus. Therefore, they write on the paper just what she wrote on the metal plate.

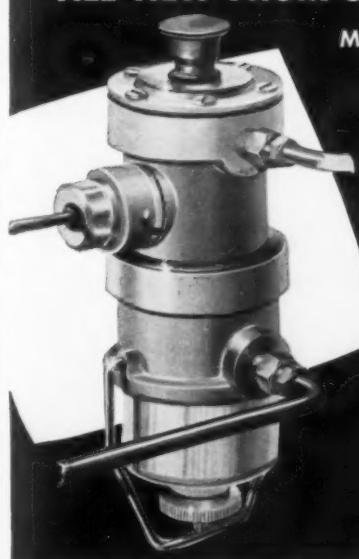
Our drivers tear off the written messages from the receiver,

go pick up the cars and deliver them to the customers waiting by the cashier's window.

There are many advantages to this system. Because the driver has his information in written form he always gets the right car. And, the receiver always lists the numbers in the exact sequence the cashier transmitted them. So, the cars are picked up in that order and no customer ever feels he is being slighted.

ALL-NEW FROM STEWART-WARNER...

MODEL 240-A



**electric
fuel pump**

- for cars, trucks and all gasoline engines
- Models with single or dual pumps



**FOR INSTANT STARTS . . . AND CONSTANT, POSITIVE
FUEL FLOW BOTH WINTER AND SUMMER!**

Highest delivery rate! Up to 60 gallons per hour, with oversize piston, coil and power spring.

Adjustable pressure! Pump can be easily adjusted from 1 PSI up to 7½ PSI to give exact shut-off pressure required by any carburetor.

Built-in automatic pressure regulator! Prevents flooding and starving. Maintains desired pressure at carburetor . . . gives smooth, steady fuel supply . . . eliminates surging.

Built-in fuel filter! Extra-large reservoir and oversize filter element.

Easy wiring and installation! Battery can be either positive or negative ground.

Serviceable in field! Routine maintenance—even complete overhaul—can be done by your own service personnel.

Minimum inventory! Just two models—6-volt and 12-volt.

Order from your jobber today!



**INSTRUMENT DIVISION
STEWART-WARNER
CORPORATION**

1840 Diversey Parkway
Chicago 14, Illinois

Plastic Solder Continued from page 51

of material. The adhesive characteristics of the epoxy resins on which the solder is based prevent "fall outs" or failures.

Plastic solder is useful in the same way as lead or tin. It can be used for the repair of cracks, dents, gouges and abrasions. This is possible because the epoxy resin solder can be built

up in a series of layers through successive curings. Because of its ability to cure at low temperatures, plastic solder does many jobs that would be dangerous with the lead and torch method.

For example, in repairing small holes in a gas tank, the tank need only be drained, not steam-cleaned. Heat lamps and

air-drying replace the torch. Plastic solder repairs can be carried out under and on the dash without damage to instruments. The material can be used also in filling holes close to the interior trim without danger of scorching fabric.

On a typical job, where one to one and a half hours would be required for leading alone, the filling and finishing can be done with resin solder in 15 to 30 minutes. Preparation and finishing procedures remain the same in both cases. It is in the application of the filling material where time is drastically reduced.

Bumping Recommended

Under both systems, bumping is recommended. Surfaces must also be cleansed and dirt, wax and road scum removed. Sanding is required to remove rust, old paint and scale. Such steps are vital to promote adhesion. After application, plastic solder, like lead, can be disk-sanded to contour. Priming and painting processes are similar in both cases.

The methods of applying plastic solder is very simple. After surface preparation, the desired quantity of resin is mixed with the hardener, using equal proportions. Scoop out the same size globs of each material on a piece of clean cardboard. Resin and curing agent have the consistency of soft butter and are mixed thoroughly. Each "batch" or "mix" has a useful life of about four hours. This provides enough time for a number of repairs. It may be convenient to make up one batch in the morning, and another for the afternoon repairs.

Pre-heat Surface Area

Next, the surface of the area to be repaired is pre-heated with a butane torch or a heat lamp. This step is necessary to remove moisture and grease to assure good bonding. The mixture is then applied.

You're ALL-WAYS ahead of the game with EIS CUPS

EIS HRC*

"E" SERIES CUPS WITH EXPANDERS

More than 60% of all '56-'57-'58 cars were initially equipped with wheel cylinder cups AND expanders! EIS makes them in all sizes for replacement!

THEY'RE MADE BETTER!

Especially designed for Chrysler Products plus Chevrolet, Ford, International, GMC and other truck installations, '40 thru '58!

THEY WORK BETTER!

Designed to provide a better sealing job at no extra cost. They're also furnished in all EIS Master Cylinders and Master Cylinder Repair Kits!

THEY LAST LONGER!

These EIS cups are NEW! They're furnished with Expanders for all vertically-mounted cylinders!

***THEY'RE HEAT-RESISTING!**

EIS Plain Cups are available for those who still want them. They're moulded with heavy walls and wide flares!

EIS AUTOMOTIVE CORP., Middletown, Conn.

Write for Catalog

Management Clinic . . . Continued from page 63

The trunk lid should be fastened securely before removing a spare tire from it. To avoid the danger of a cracked head.

Particular care should be exercised when inflating truck tires: Before inserting air, the body should be protected by placing the tire under the hoist runway or in the inflating rack. During the inflation period, the tire should be checked and double checked with a lock rim. The careful operator also inflates to only ten pounds. Then he waits a few seconds before inspecting again. After the tire is fully inflated, he doesn't hammer to seat ring. And he deflates again if the ring doesn't look okay. Above all, he keeps his face protected by the fender when inflating either a truck or a passenger car tire. A blow out directly in the face can cause quite a bit of damage.

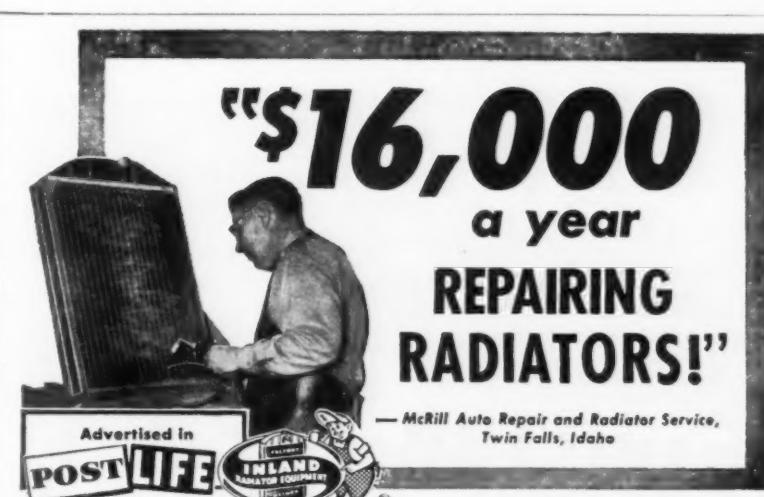
But no matter how you work

out your own safety program, it's important to:

1—Keep a well stocked first aid kit at the shop. Learn exactly how and when to use every item that is in it. In extreme cases this precaution may actually save a life. In normal every day use it will certainly help to curtail on-the-job accidents.

Even small scratches and cuts should be treated promptly. This stops infection. When there is any doubt, the doctor should be called.

2—Make sure that each employee knows exactly where every fire extinguisher is located. And how to use it. Keep firefighting equipment uncovered. In plain sight at all times. Make sure that this equipment is tested frequently.



\$16,000 a year REPAIRING RADIATORS!

— McRill Auto Repair and Radiator Service,
Twin Falls, Idaho

Advertised in **POST LIFE** and **INLAND RADIATOR EQUIPMENT**

McRill says: "My Inland-equipped radiator dept. gave me an additional \$12,416 in 1955—over \$16,000 in 1956! My total repair volume is up 41%, due largely to added business attracted by my radiator dept. To Inland equipment and training goes much of the credit!"

YOU CAN DO AS WELL! Many others, with modern Inland equipment, are making \$8,000, \$10,000, \$15,000 a year! Car owners are now aware it pays to have their radiators cleaned and repaired regularly.

INLAND NATIONAL ADVERTISING HELPS YOU! Inland ads in the Post and Life warn car owners of the danger of neglecting radiators . . . urge regular servicing . . . suggest seeking the nearest shop displaying the Inland sign. Inland, world's largest radiator servicing equipment manufacturer, offers the complete package—equipment, training, merchandising, even a "Pays-For-Itself" purchase plan. Mail the coupon for free descriptive book.

FREE TRAINING SCHOOL Complete factory school trains you or your man quickly. Cleaning, repairing, recoring, pricing, merchandising—everything! Hundreds of graduates now expert radiator repairmen. It's FREE to Inland customers! "Qualified me to give expert service!" says Jim Pendergast, Faber, Mo. "Excellent training!" says Moser Motor Sales, Berne, Ind.

MAIL TODAY

New free 48-page book, "Blueprint for Profits," tells about many making an EXTRA \$8,000 to \$15,000 a year servicing radiators. Complete with illustrations, descriptions and prices of required equipment. Popular "Pays-For-Itself" purchase plan. Invest a minute to mail the coupon—the rewards can be amazing! Send today!

INLAND MFG. CO., 1108 Jackson St., Dept. MA-8, Omaha 2, Nebr.

"SOLD EXCLUSIVELY BY MAIL"

Dept. MA-8
INLAND MFG. CO., 1108 Jackson St., Omaha 2, Nebr.
Please send new free book, "Blueprint for Profits."

FIRM _____ (PLEASE PRINT)

ADDRESS _____

CITY _____ **ZONE** _____ **STATE** _____

BY _____ **TITLE** _____

If dealer, make of car sold
Are you now operating a radiator dept.? Yes No

Shop Appeal Continued from page 70

whenever living expense information is needed.

"One of the big advantages, we have found, is to quickly catch errors which might have otherwise gone unnoticed for months. It isn't unusual for us to find that a mistake has been made which is in the customer's favor and telephoning a house-

wife to explain that we have found that we owe her \$1.00 and are sending her a check for that amount is a powerful good will builder.

"In the same connection, where a supplier has overcharged us in any way or there is a shortage in the delivery, we can catch it immediately while

the order is still fresh in the supplier's mind."

With this "line-up of attractions" the garage has concentrated on extremely complete service which, again, is an important means of pleasing the feminine side of the family. Included in the line-up are tune-up, brake, front end alignment, paint, ignition, lubrication, gasoline, complete parts and accessory department, glass, and body work.

Gas Pumps Relocated

The two gas pumps which had formerly been located in an out of the way stop at the rear of the garage were relocated out in front, on the driveway, where the expense immediately justifies itself in boosting gas volume to around 9,000 gallons per month.

Net results of the program, after two years, have been thoroughly impressive. First, an even 50 per cent of the daily traffic into the service department is composed of women and of this number a surprisingly large percentage are "business women" executives, salespeople, etc., who own their own cars and who formerly went to Denver repair agencies and automobile dealers for service.

Volume Up 25 Per Cent

The tabulation shows that the Shredds increased their volume an even 25 per cent the first year over the best year which the garage had enjoyed in the past and for the second year, another 10 per cent was added. This totals up to a healthy 35 per cent. Far profitable, as well, per individual billing, than had been the case before.

Women who normally dreaded a trip to the garage in the past cheerfully come in three or four times per year to the Wadsworth Garage for service and check-ups. Often enough that the Shredds can call around half of their feminine customers by name at sight.

for
**LONGER
MUFFLER
LIFE.....**

**HEAVY
TWIN
SHELL**

HAVILAND

Thermoflo

MUFFLERS

For longer muffler life, the shell is important, and THERMO FLO's heavy twin shell serves best because of its extra heavy construction. The outer shell is full 20 gauge . . . as heavy as found in old type single shell mufflers; to this, Haviland engineers have added a long wear - sound deadening inner shell.

Long wear is also assured by the revolutionary new THERMO FLO "instant heat distribution" that minimizes condensation which is the cause of internal muffler wear.

Write today for the full inside and outside story on Haviland THERMO FLO mufflers.

MORE THAN A QUARTER CENTURY
OF MUFFLER MANUFACTURING PROGRESS.

Write Department 11 for details.

ARNOLD HAVILAND COMPANY • Defiance, Ohio

Coming Events Calendar

Aug. 27-30 — Automotive Parts Re-builders Association convention and trade show, Conrad Hilton Hotel, Chicago.

Sept. 15-20 — Automotive Electric Association's Fall Meeting of the Manufacturers and Distributors Div., Broadmoor Hotel, Colorado Springs, Col.

Oct. 15-18 — Automotive Wholesalers of Texas convention, Moody Civic Center, Galveston, Texas.

Oct. 20-22 — 1958 SAE National Transportation Meeting, Lord Baltimore Hotel, Baltimore, Maryland.

Oct. 20-24 — 46th annual National Safety Congress and Exposition, Chicago.

Oct. 24-Nov. 2 — Small Car and Aircraft Exhibition, International Amphitheatre, Chicago.

Oct. 27-28-29 — New Jersey Automobile Trade Association, Chalfont-Haddon Hall—Atlantic City.

Nov. 3-6 — Automotive Warehouse Distributors Assn. convention and manufacturers-distributors conference, Muehlbach Hotel, Kansas City, Mo.

Nov. 12 — Connecticut Automotive Trades Assn., Hotel Statler, Hartford.

Dealers Convention

Aug. 13-15 — Automobile Dealers Assn. of West Virginia, Greenbrier Hotel, White Sulphur Springs.

Aug. 17-18 — Georgia Automobile Dealers Assn., General Oglethorpe Hotel, Savannah.

Sept. 5-7 — Maine Automobile Dealers Assn., Eastland Hotel, Portland.

Sept. 7-9 — Colorado Automobile Dealers Assn., Antlers Hotel, Colorado Springs.

Sept. 7-9 — Wyoming Automobile Dealers Assn., Lander, Wyoming.

Sept. 8 — New Hampshire Automobile Dealers Assn., Inc., Farragut House, Rye Beach, N. H.

Sept. 8-9 — Minnesota Automobile Dealers Assn., Leamington Hotel, Minneapolis.

Sept. 14-16 — Michigan Automobile Dealers Assn., Pantlind Hotel, Grand Rapids.

Sept. 18-20 — Arkansas Automobile Dealers Assn., Hotel Marion, Little Rock.

Sept. 21-22 — Kentucky Automobile Dealers Assn., Inc., Sheraton-Seelbach Hotel, Louisville.

Sept. 21-23 — Ohio Automobile Dealers Assn., The Neil House, Columbus.

Sept. 21-23 — Automotive Trade Assn. of Virginia, Cavalier Hotel, Virginia Beach.

Sept. 21-23 — New York State Automobile Dealers, Inc. 35th Annual Convention, Lake Placid Club, Essex County, N.Y.

Sept. 22-23 — Wisconsin Automotive Trades Assn., Schroeder Hotel, Milwaukee.

Oct. 19-21 — Florida Automobile Dealers Assn., Eden Roc Hotel, Miami Beach.

Nov. 8-10 — Texas Independent Automobile Dealers Assn., Texas Hotel, Fort Worth.

You can
SPEED UP
90% of
your
body
work!..

...with the



70% Faster Hook-Up
90% Faster Take-Down
Exclusive with P-F



Simply "push-and-twist" to engage Speed Midget's EZ-E-ON tubing and attachments . . . "twist-and-pull" to release. Beats old-fashioned screw on attachments in stop-watch test!

50% Faster Ram Action



Just 30 pump strokes for full ram extension of the powerful 4 Ton Jack . . . 6-1/2 strokes per-inch ram travel. Proved faster in on-the-job tests! Double filter screen plus wiper ring on ram keeps dirt out and increases life of unit. Built in relief valve prevents damage from overloading.

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COMPANY _____
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Please send me Illustrated Catalog on all P-F Equipment





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Give your customers ANSWERS...NOT ARGUMENTS!

TELL THE WHOLE STORY...

Let's face it. "Engine trouble" also means "bearing trouble"—almost always. Worn bearings cause other parts to function improperly and fail prematurely. Check the new Monmouth Bearing Service Chart . . . it will pinpoint trouble—confirm your own analysis—educate your customer—and help you sell the benefits of your complete engine service.

SELL THE COMPLETE JOB...

The Monmouth Bearing Chart *tells* the story and *sells* the job. It backs up your own good judgment . . . builds confidence in your customer . . . explains

and illustrates the *causes* of bearing failure—the effects—and the recommended remedies.

FIX IT ONCE AND FIX IT RIGHT...

"Re-ring jobs" and "valve grind jobs" are only a part of what's really needed. Bearing replacement is an essential part of the cure. The "MBS" CHART is *accurate—authentic—convincing* and *conclusive*. Use it to lay out the job as it *should* be done. And Monmouth Bearing quality will enable you to guarantee your workmanship and customer satisfaction. Get in touch with your N.A.P.A. jobber. He has a chart for you . . . at no obligation on your part.

Monmouth

ENGINE BEARINGS

CLEVITE SERVICE

Cleveland Graphite Bronze
Division of Clevite Corporation
Cleveland 3, Ohio



*The words Monmouth, Clevite and Micro are registered trade marks of Clevite Corporation

THE LAST LAFF



"He doesn't own a car. He just comes in to look at the calendars."

Caller: "Doctor, my husband has some terrible mental affliction. Sometimes I talk to him for an hour and then discover he hasn't heard a single word."

Doctor: "Madam, that's not a mental affliction—that's a gift."

He: "So—You're going out with another man? Have you lost your respect for that engagement ring I gave you?"
She: "Yes. A jeweler told me what it was worth the other day."

A high school girl was telling her family about her home economics class. "Do they let you eat what you cook?" asked her mother.
"Let us?" she answered. "They make us!"

Wife: "Well, what happened when you asked the boss for a raise?"
Hubby: "Why, he was like a lamb."
Wife: "What did he say?"
Hubby: "Baa!"

A manufacturer of electric light bulbs was talking to the owner of a theatre.

"I'd like to supply you with bulbs for your marquee," the manufacturer said, "and it won't cost you a cent. It will enable me to realize a lifelong ambition."

"If I accept the free bulbs," the curious theatre man asked, "will you tell me about this ambition of yours?"
 "Sure," the man said, "It's just that I've always dreamed of seeing my lights up in names."



"It runs on four flashlight batteries—"

Psychiatrist: "Why do you keep snapping your fingers?"
Patient: "It keeps the tigers away."
Psychiatrist: "Why, there aren't tigers within 6,000 miles of here."
Patient: "It works, doesn't it?"



"I asked her what kind of driving she does . . . she says 'hit and miss'."

Molly: "It's shameful the way that new friend of mine starts making passes at me after a half-dozen drinks."
Polly: "What's shameful about that?"

Molly: "Wasting five drinks."

He (on golf course): "What's your handicap?"
She: "My father told the caddy to keep an eye on me."

She: "Stop kissing me this very moment. It's unsanitary!"
He: "Oh, that's all right, gal. I'm not doing this for my health."

Sign in factory: "Look alive—you can be replaced by a button."



"My wife will love it. It's her favorite color—money green."

NEW DELCO SUPER 99

BRAKE FLUID—heavy-duty protection throughout 400° range at economy prices!

COLD!

HOT!

Gives
COLD
WEATHER
SAFETY
under
operating
conditions*
as low as
-60°F.

Gives
HOT
WEATHER
SAFETY
under
operating
conditions*
in excess of
350°F.

For extra cold weather safety, it's new Delco Super 99 Brake Fluid! Flows freely at minus 60° F. AND exceeds the minimum boiling point of SAE-70R1 specification by 50 degrees plus. Delco Super 99 is chemically and physically stable, compatible with all rubber or metal brake system parts and with other quality brake fluids.

Give your customers 400° range heavy-duty protection with Delco Super 99. Order through the United Motors System, or through Chevrolet.

*In wheel cylinders under normal static pressures.



In a wide variety of sizes including this new 12-oz. can.

For safety's sake sell the best...

sell Delco Brake Fluids



Moraine Products

Division of General Motors, Dayton, Ohio

Circle 355 On Inquiry Card, page 61

Thermoid Brake Fluid goes over BIG...

... because it meets or exceeds all SAE requirements. It mixes with all quality fluids . . . operates dependably from -60° to 400° . . . will not swell rubber cups . . . contains a high percentage of lubricant . . . fortified with corrosion inhibitors to protect metal parts.



Other high-quality Thermoid Products . . . Modernized for modern driving conditions.



Fan Belts and Radiator Hose



Brake Lining and Bonded Shoes



Thermoid

Thermoid Company, Trenton, N. J.